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P R E F A C E .

To the Chairman and Members of the Essex County Council.

I have the honour to present my twenty-ninth Annual Report (the fifty eighth to be issued) which deals with the health services of the Administrative County of Essex during the year 1947. It has been compiled under somewhat extraordinary conditions which account for its late publication. The transfer of senior staff and files of correspondence to the new authorities established under the National Health Service Act, 1946, has made the collation of data and statistics a very difficult matter, quite apart from the onerous new duties placed upon the remaining staff of the Department in connection with the implementation of Part III and Section 51 of the Act.

The Report is, as usual, divided into sections, a new one having been added dealing with the work undertaken during the year in anticipation of the coming into operation of the new Service.

The main features of interest in the statistical tables for the Administrative County are that the Birth Rate again increased from 20.6 (which was the highest recorded since 1920), to a new high record of 21.2. The Death Rate remained almost stationary at 10.7 (in 1946 it was 10.4). There was again a remarkable decrease in Infant Mortality from 33 to 28 per 1,000 live births, and Maternal Mortality (in the County Council's Welfare Area), decreased from 1.26 to 0.68. Notifications of notifiable diseases increased from 15,737 to 21,458. This was accounted for almost entirely by increases in the number of notifications of Measles (+ 5,277) and Whooping Cough (+ 713). The number of notifications of Scarlet Fever remained almost stationary at 1,811 whilst the notifications of Diphtheria were exactly halved (76 compared with 152).

Essex had its share of the country-wide outbreak of Poliomyelitis. Attention is drawn to the special note prepared by Mr. W. H. Leak in regard to the 255 cases which were notified which appears on page 6.

The publication during the year of the *Essex County Health Handbook*—the fifth handbook of its kind published by a County Council—called forth favourable comment and a word of thanks is due to the Publishers, Messrs. Ed. J. Burrow & Co., Ltd., Cheltenham, for their co-operation and assistance in this venture.

An increase is recorded in connection with the work of the County Health Inspector and his staff in regard to the maintenance of a pure milk supply, rural housing and the prevention of rivers pollution. New duties were placed upon them during the year in connection with the Ice Cream (Heat Treatment, etc.) Regulations, 1947, which came into operation on 1st May, 1947, and which have as their object the prescription of a standard of cleanliness for ice cream. A note upon the work undertaken in connection with the Regulations appears on pages 24 to 28.

Details of an interesting enquiry into the principal causes of blindness at different ages will be found on page 40 and attention is also drawn to the report prepared by Professor M. Greenwood, F.R.S., the County Council's Consultant Medical Statistician, and Mr. W. H. Leak, on "Tuberculosis in the Young Adult from the Public Health Angle" which appears on pages 54 to 73. This report provides an interesting general survey of the subject and at this most appropriate juncture attempts to evaluate the success or otherwise of the County Council's Tuberculosis Scheme during the previous fifteen years.

Shortages of staff and difficulties of supplies were the limiting factors in the development of the Council's hospital services during the year. The consequent closure of beds had many distressing repercussions, particularly so far as tuberculosis patients were concerned. Nevertheless it was possible to maintain an average of 900 patients under treatment in sanatoria. The demand for beds in connection with the Emergency Medical Services to all intents and purposes came to an end in the year under review.

There was a further increase in the number of births occurring in the County Council's Welfare Area. This meant a continuance of the strain placed on the available accommodation in maternity homes and hospitals and of the rigorous system of selection which was put into operation in the previous year. In consequence a heavier burden was placed on the domiciliary midwifery service and the manner in which they coped with the additional work involved is greatly to the credit of the midwives generally. Further strides were made in the matter of training them in the administration of analgesics in childbirth. The Domestic Help Scheme was much in demand and played its part in relieving the situation created by the shortage of hospital beds.

A glimpse of a new era so far as the health of the community is concerned is given in Part VI of the Report. The new National Health Service has evoked a good deal of criticism—not always well-founded. There will be many initial difficulties necessarily attendant upon a social upheaval of this kind. When these have been overcome, however, there are some grounds for hoping that it will be discovered as a major advance in the organization of the public health services, possessing immense possibilities not only for Local Health Authorities and the other statutory bodies established by the Act, but for the medical profession, medical auxiliaries, the administrator and voluntary workers of all descriptions.

In the difficult year under review it has been of the greatest assistance to be aware of the confidence and support of the Chairmen and members of the Public Health and Housing and Social Welfare Committees. Without it the problem of dealing with the volume of work passing through the Department would have been incapable of solution. My thanks to the Medical Officers of Health and other officers of County District Councils are particularly sincere this year especially so far as the autonomous districts are concerned; theirs has been an unenviable task—that of providing the necessary information to ensure the transfer to the County Council as Local Health Authority of pattern services which they had created and tended over many years. I am very

grateful to them for their co-operation and with them I must link the members and officers of many voluntary associations who were equally helpful in connection with similar invidious task. Finally my thanks are due to all the members of the staff of the Public Health Department for the way in which they responded to the calls made upon them during a very difficult and busy year.

W. A. BULLOUGH,
County Medical Officer

PUBLIC HEALTH DEPARTMENT,
COUNTY HALL, CHELMSFORD.

July, 1949.

PART I.

ACREAGE AND POPULATION.

The following table sets out particulars of the Registrar-General's estimated population for the year 1947 in comparison with the Census figures of 1931. The table also gives the rateable value.

	<i>Acres</i> <i>Census, 1931</i>	<i>Population</i> <i>Census, 1931</i>	<i>Registrar-General's</i> <i>Estimated Popula-</i> <i>tion Figures, 1947</i>	<i>Rateable Value</i> <i>1st April, 1947</i>
Municipal Boroughs (13) ..	72,450 ..	739,129 ..	883,553 ..	} £10,803,859
Urban Districts (19) ..	184,532 ..	265,196 ..	396,207 ..	
Rural Districts (11) ..	702,482 ..	184,679 ..	210,710 ..	
Total	<u>959,464</u> ..	<u>1,189,004</u> ..	<u>1,490,470</u>	

The product of a 1d. rate is estimated at £43,473.

SOCIAL CONDITIONS.

The social conditions were given in the report for the year 1937.

VITAL STATISTICS.

The chief vital statistics of the Administrative County compared with those for England and Wales during 1947 are set out below :—

	<i>Essex</i>		<i>England and Wales</i>	
	<i>1943-1947</i>	<i>1947</i>	<i>1943-1947</i>	<i>1947</i>
Birth Rate per 1,000 population ..	19.3 ..	21.2 ..	17.8 ..	20.5
Death Rate per 1,000 population ..	11.2 ..	10.7 ..	11.5 ..	12.0
Infant Mortality Rate per 1,000 Births ..	35 ..	28 ..	44 ..	41
Still-Births Rate per 1,000 total live and still-births .. ' ..	25 ..	20 ..	27 ..	24

(Statistical Tables—pages 131-134).

INFECTIOUS DISEASES.

Notification.

A summary of the notifications of infectious diseases in the various County districts during 1947, is set out in Table IX page 134. The table shows that 21,458 persons were notified to be suffering from infectious diseases compared with 15,737 in 1946.

The number of cases of Scarlet Fever notified was 1,811 in 1947 as against 1,886 in 1946; the number of deaths being nil for both years. There was a substantial decrease to 76 notifications of Diphtheria as compared with 152 in 1946. The deaths also showed a similar decrease; the number being three as compared with 16 in 1946.

The notifications of Measles showed an increase to 12,573 in 1947 from 7,296 in 1946. The number of cases of Whooping Cough also showed an increase, the number being 4,000 in 1947 compared with 3,287 in 1946. There were no cases of Small Pox.

Notified cases of Measles in an epidemic year generally reach a maximum in late March or early April, subsequently declining. In 1947, however, the rise was checked in the first week of March when 543 cases were notified and notifications fell to an average of 400 a week in April. In May, they rose again to a peak of 710 cases falling in the next three months to the usual minimum in September. The phenomenon appears to be associated with an exceptionally late epidemic in an area including the Boroughs of Chingford, Leyton, Walthamstow and Wanstead and Woodford.

Diphtheria Immunization.

The co-operation between the County Council and County District Councils in regard to diphtheria immunization was continued throughout the year.

In connection with the national campaign for diphtheria immunization, supplies of various leaflets were provided for distribution to mothers through the County Council's Health Visitors and Clinics. In addition newspaper publicity, film shows and poster displays were a great asset in this propaganda campaign.

Dr. A. H. Gale, of the Ministry of Health, has kindly provided figures, based on returns received from County District Councils in Essex, in regard to the actual number of children immunized during the year. From these, it appears that the following numbers of children in the Administrative County were immunized against diphtheria during 1947 (figures in brackets are those for 1946) :—

Age Groups 0-5	..	..	..	18,374	(21,756)
Age Groups 5-15	..	..	..	3,409	(4,819)
				<hr/>	<hr/>
				21,783	(26,575)
				<hr/>	<hr/>

The following information shows the number of diphtheria notifications and the number of deaths from the disease during the years 1944-47 :—

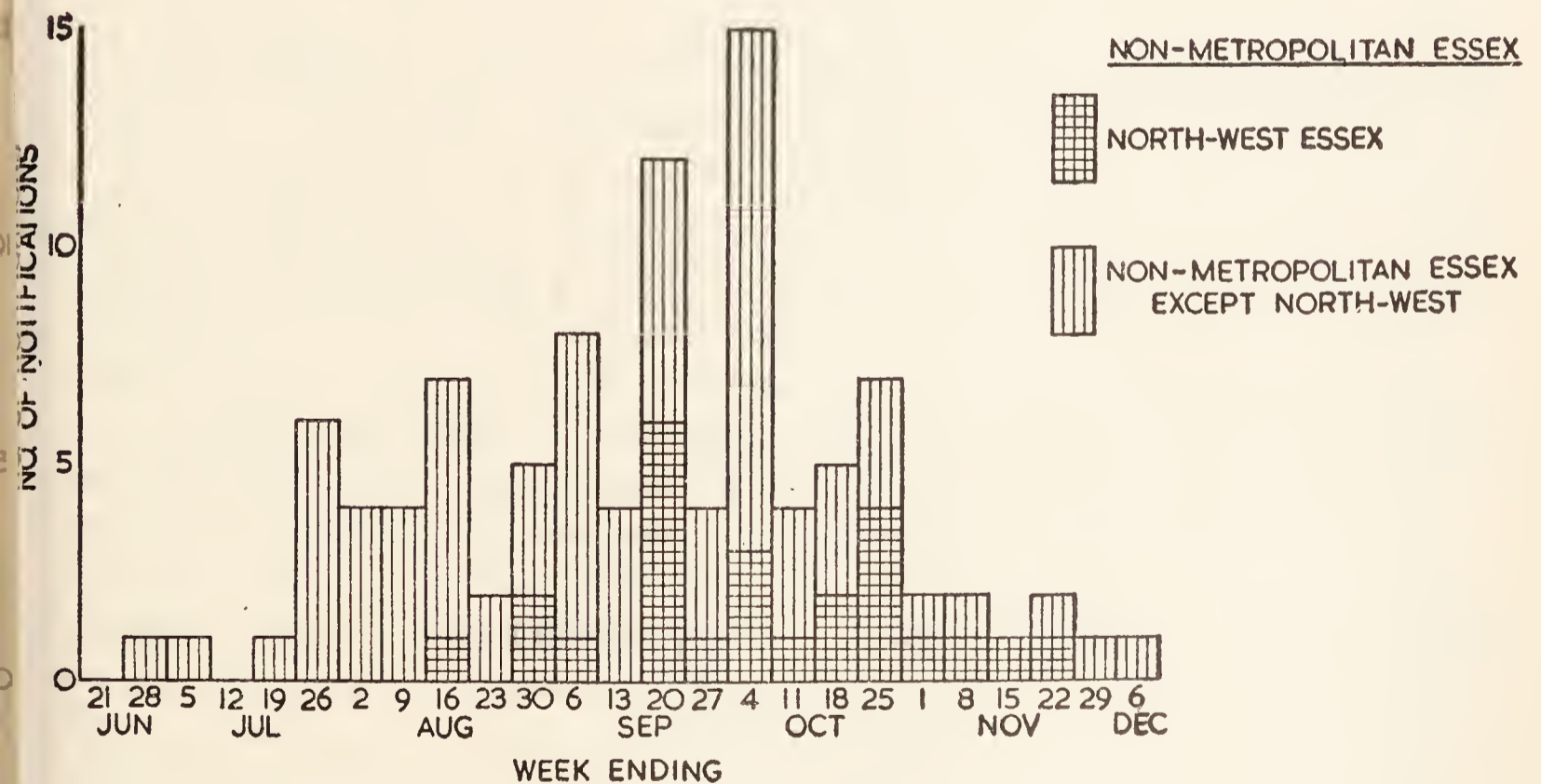
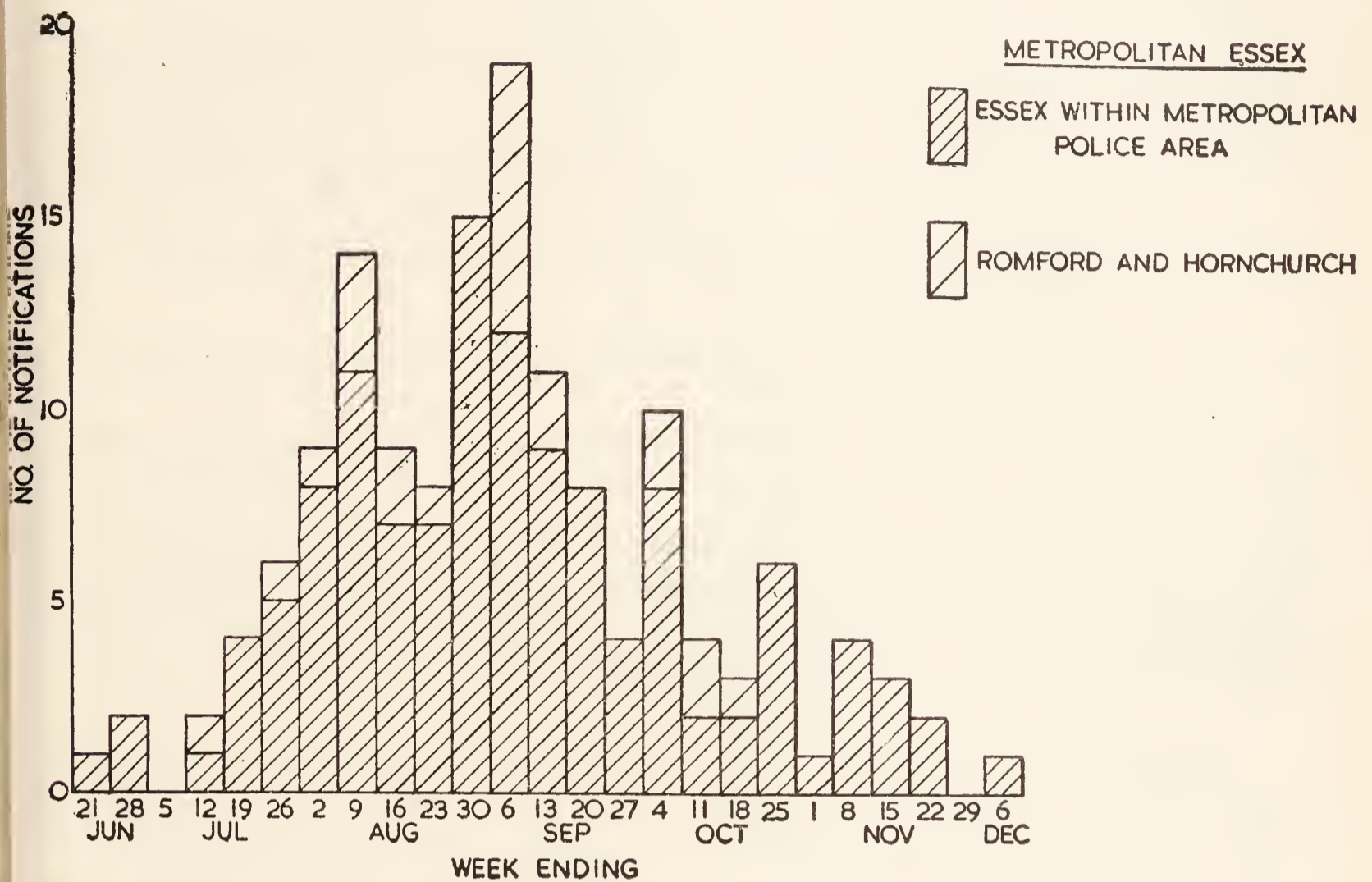
		1944.		1945.		1946.		1947.
Notifications	..	160	..	219	..	152	..	76
Deaths	..	12	..	14	..	16	..	6

Poliomyelitis.

During the summer and autumn of 1947, there was a greatly increased prevalence of poliomyelitis. This was part of an outbreak which was general throughout the country. Reference will be made later in this report to the administrative problems that this involved. The paragraphs that follow are the result of an examination of the notifications of poliomyelitis and polioencephalitis made to Medical Officers of Health of County Districts in Essex, and of the deaths which were attributed to these diseases.

VALUE OF THE DATA. It is well known that, especially during an epidemic, a comparison of the number of cases of Acute Anterior Poliomyelitis and Polioencephalitis

CASES OF POLIOMYELITIS AND POLIOENCEPHALITIS NOTIFIED IN THE WEEKS ENDING JUNE 21ST - DEC. 6TH 1947.



notified in different areas is apt to be misleading since in some areas only paralysed or undoubted non-paralysed cases are notified while in others, presumptive cases also are notified. Even the corrected figures published quarterly, suffer to a certain extent from this disadvantage. The Survey organized this year by Dr. A. M. McFarlan, the Public Health Laboratory Service, has given information as to the practice of Medical Officers of Health of some of the Essex districts which suggests that some variation does exist. For example :—

In Leyton Borough out of 14 corrected notifications, 12 refer to paralysed cases.

In Hornchurch Urban District, out of 13 corrected notifications, 5 refer to paralysed cases.

In Saffron Walden Rural District, out of 10 corrected notifications, 6 refer to paralysed cases.

In Dunmow Rural District, out of 10 corrected notifications, 9 refer to paralysed cases.

In the following analysis of the cases notified in 1947, sometimes the differences noted depend on rather small numbers. In such cases, the appropriate statistical test has been employed to determine whether such a difference may reasonably be ascribed to chance. If this is not so, the difference will be referred to as significant.

COURSE OF THE EPIDEMIC. There were 255 cases of Poliomyelitis and Polioencephalitis notified during 1947, of which 247 cases were notified after the middle of June. The corrected notifications numbered 221, of which 208 were notifications of Poliomyelitis and 13 of Polioencephalitis. The highest number of cases notified in any one week was 27 in the week ending September 6th, the next highest being 25 four weeks later. This gives the whole County experience a distinct double peak. If, however, that part of the County situated in the Metropolitan Police Area (hereinafter referred to as Metropolitan), is separated from the remainder of the County, it is found that the first peak occurs only in the Metropolitan part, and the second peak is very largely due to the non-Metropolitan part. This suggests a spread from the Metropolitan outwards through the County. The peak number of notifications in the Administrative County of London was in the week ending August 23rd, and in that part of Essex included in the Metropolitan Police Area, in the week ending August 30th. If, however, to this area are added the outlying areas of Romford and Hornchurch, which are now more allied to Metropolitan than to Rural Essex, the peak week becomes the first week in September. The peak for the remainder of the County is, as indicated above, in the week ending October 4th, but half the cases had been notified by the end of the third week in September. If the predominantly rural area of North-West Essex (Saffron Walden Borough and Rural District and the Dunmow Rural District) are considered separately, it is found that although the peak number of notifications was earlier than for the rest of "rural" Essex, the first case was as late as the week ending August 16th, and cases continued to be notified till late November. The accompanying diagram show these results.

AGE AND SEX DISTRIBUTION. The 221 corrected notifications are shown below analysed by age and sex :—

	0-	1-	3-	5-	10-	15-	25-	Total
Males ..	5	13	14	28	30	16	30	136
Females ..	2	6	8	23	10	25	11	85
Total ..	7	19	22	51	40	41	41	221

The sex ratio was 1.60 compared with 1.24 for England and Wales, from which it is not significantly different. The following Table compares the cases which occurred with the number (to the nearest digit) which would have occurred if the age distribution of cases had been as for England and Wales :—

Age Group.	Actual.	Theoretical.
0-4	48	70
5-9	91	80
15 and over	82	71

We see that Essex had a lesser proportion of cases in all age groups under 5, and a greater proportion in all age groups over 5. This difference is found to be significant. Both males and females were less than expected at ages under 5, but for ages over 5, the excess for males was in the age groups 10-14 and 25 and over, but for females in the age groups 5-9 and 15-24. Percentages of total cases less than 5 years of age in Essex, in England and Wales and various areas of Lancashire as quoted in *Public Health*, 1948, January, Volume 61, No. 4., pages 55-62, were :—

Essex Administrative County ..	21.7.
England and Wales ..	31.5.
Lancashire Administrative County ..	48.5.
Eccles Municipal Borough ..	61.0.
Manchester County Borough ..	40.6.

CASE MORTALITY. Twenty-five deaths were attributed to Poliomyelitis or Polio-encephalitis in 1947, giving a case mortality of 11.3 per cent. Only one death occurred under five years of age, 7 between 5 and 14, and 15 in cases over 14, giving a case mortality for adult ages of 18.3 per cent. significantly higher than 5.8 per cent. the case mortality for ages under 15. The male case mortality rate was 14.0 per cent. compared to the female rate of 7.1 per cent., but no significance can be attached to this result.

REGIONAL DISTRIBUTION. When the County districts are classified into six groups each containing areas of roughly similar social economic type, the number of notifications and notification rate per 1,000 persons at the given ages are :—

Type of Area	All Ages		Under 15		15 and over	
	No. of Notifi- cations	Notifi- cation rate	No. of Notifi- cations	Notifi- cation rate	No. of Notifi- cations	Notifi- cation rate
Dormitory ..	50	.207	32	0.60	18	.096
Dormitory Indust. ..	93	.138	64	0.43	29	.055
Urban ..	19	.101	8	0.19	11	.075
Urban-Rural ..	12	.089	8	0.27	4	.038
Rural ..	39	.217	20	0.53	19	.134
Riparian ..	8	.109	7	0.45	1	.017
Total ..	221	.148	139	0.43	82	.070

The most noticeable results are the high rates for the Dormitory and Rural groups. For the Dormitory group, the excess over average is, approximately, the same in the two age groups. This could be accounted for by the notification procedure being different in the districts of this group from that in the rest of the County. There is some confirmation for this suggestion from the relatively small number of paralysed cases to all cases found at Hornchurch. In the Rural group on the other hand, the notification rate is relatively very much larger at adult ages than for children, a result which does not look like the result of the notification of doubtful cases, especially in view of the high percentage of paralysed cases in the two rural areas of Saffron Walden and Dunmow, which contribute over 50 per cent. of the notifications for this group. It is found that the Rural group notification rate is significantly above that for the whole County. The urban group has a low notification rate for children, but no other group shows any significant departure from the County rate.

Scabies.

The facilities outlined in the Report for 1946 continued to be available during the year under review. With the expiry of the emergency enabling statutes the Scabies Order ceased to operate on 31st December, 1947. Such action as is necessary in future will therefore be taken under the normal statutory powers contained in the Public Health Acts for dealing with verminous conditions.

ESSEX EPIDEMIOLOGICAL COMMITTEE.

The membership of this Committee which was formed in 1939, is made up of Pathologists, Medical Officers of Health, Medical Superintendents and General Medical Practitioners. The County Medical Officer of Health acts as Chairman.

Its terms of reference are to survey periodically the infectious diseases occurring in the Administrative County of Essex and to consider what steps (if any) should be taken to combat those diseases.

This Committee met six times during the year 1947, at the County Hall, Chelmsford, giving consideration to a variety of subjects including diphtheria immunization ; poliomyelitis ; infection among infants born at a private nursing home ; routine antenatal examination for the Rh factor ; typhoid fever cases at the Oldchurch County Hospital, Romford ; outbreak of staphylococcal poisoning ; scarlet fever in the Victoria Hospital, Romford ; measles serum ; heating in schools ; examination of employees at waterworks ; ice cream.

Special consideration was also given to the question of the medical examination of persons employed in school canteens in the Administrative County. The Chief Education Officer estimated the number of persons so employed to be 3,000. In view of this large number, the Committee recommended

- (a) that the routine examination of every employee engaged in the preparation or handling of food in the School Meals Service is not recommended ;
- (b) that every employee engaged or to be engaged in the preparation or handling of food in the School Meals Service be required to complete a medical history form ;

- (c) that where such an employee is kept from duty on the advice of the Medical Officer of Health there should be no financial loss to the employee ;
- (d) that there should be a system of regular inspection by the staff of the Public Health Department of every school canteen, school kitchen and school where meals are served.

In regard to the cleansing and sterilizing of equipment the Committee recommended—

That equipment used in school canteens and school kitchens and for conveying hot meals to schools be thoroughly cleansed and sterilized before it is used again, preferably by steam, or by the use of some preparation of bleach with a free chlorine content where steam cannot be made available ; that adequate washing-up facilities with a good supply of hot water should be provided at every place where meals are taken by the schoolchildren ; and that after being cleansed and sterilized all equipment should be properly protected until it is brought into use again.

CANCER.

The number of deaths occurring in the County from Cancer and malignant disease during the year is shown in the table below. The death rate per 1,000 of the population increased from 1.80 in 1946, to 1.87 in 1947.

	<i>Age Period</i>												<i>Total</i>
	<i>0-</i>		<i>1-</i>		<i>5-</i>		<i>15-</i>		<i>45-</i>		<i>65-</i>		
Borough and Urban Districts..	2	..	7	..	1	..	155	..	901	..	1211	..	2277
Rural Districts	—	..	1	..	1	..	19	..	133	..	257	..	411
Total for Administrative County	2	..	8	..	2	..	174	..	1034	..	1468	..	2688

The County Council's arrangements under the Cancer Act of 1939 for the diagnosis and treatment of Cancer were referred to in the Report for the year 1946, and were continued on the lines indicated therein during 1947.

TREATMENT OF VENEREAL DISEASES.

Incidence.

During 1947 there was a gratifying decrease in the incidence of venereal diseases as compared with 1946. This is shown in the following table of new cases :—

	Syphilis	Soft Chancre	Gonorrhoea
1946 ..	328	17	772
1947 ..	199	12	323

Attendance at Clinics.

Table I on page 12 shows details of the attendance of Essex patients at all clinics. It will be seen that the total number of attendances decreased from 42,173 in 1946 to 26,641 in 1947, mainly accounted for by a decrease in the attendances at

TABLE I

TREATMENT OF VENEREAL DISEASE, YEAR 1947

ESSEX PATIENTS									
Treatment Centre	Patients from all Areas Total No. treated for first time	Total Number treated for first time suffering from					Total No. of Atten- dances of Essex Patients	In- patient Days	
		Syphilis	Soft Chancres	Gonorr- hoea	Not V.D.	Total			
London Hospitals	15	2	51	143	211	2,474	—
St. Bartholomews', London	1	—	2	7	10	35	—
Romford	54	8	113	552	727	13,034	1,013
Chelmsford	29	1	36	153	219	2,393	32
Colchester	35	—	39	131	205	2,590	317
Harwich	7	—	12	19	38	377	—
Ipswich	6	—	—	7	13	188	—
Southend	11	—	13	72	96	1,065	—
Gravesend	11	—	17	44	72	1,147	—
Tottenham	14	—	15	85	114	959	—
Bishops Stortford	6	—	6	15	27	412	—
Queen Mary's, Stratford	10	1	19	92	122	1,967	—
Total for 1947	199	12	323	1,320	1,854	26,641	—
Total for 1946	328	17	772	2,814	3,931	42,173	—
Total for 1945	239	3	496	1,994	2,732	31,481	—
Total for 1944	217	4	412	1,585	2,218	29,435	—
Total for 1943	205	4	374	1,490	2,073	30,125	—

the London Clinics. There was, however, an increase in the attendance at the Chelmsford Clinic from 850 in 1946 to 2,393 in 1947. The total number of cases of venereal disease or suspected venereal disease reported for the first time decreased from 2,814 in 1946 to 1,320 in the year under review.

The County Council continued its participation in the London and Home Counties Scheme, and patients from the County were thus able to attend for advice and treatment at many of the London Clinics. Other Clinics within and outside the County at which patients attended were those situated at Romford (Oldchurch County Hospital); Colchester (Essex County Hospital); Chelmsford (Chelmsford and Essex Hospital); Ipswich (East Suffolk and Ipswich Hospital); Southend-on-Sea (Borough Sanatorium); Gravesend (*ad hoc* Clinic); Tottenham (Prince of Wales Hospital). Good progress was made in connection with the establishment of the new Clinic at Tilbury, and at the end of the year it was nearing completion.

Travelling Facilities.

A sum of £53 3s. 6d. was expended by the County Council during the financial year ended 31st March, 1947, in respect to the refund of fares of necessitous patients to and from the nearest Clinic.

Regulation 33b.

The number of cases reported under Defence Regulation 33B declined from 48 in 1946 to 19 in 1947; a summary of the working of this Regulation during the year is set out below :—

	M.	F.	Total
(1) (a) Total number of contacts in respect of whom Form 1 was received	4	15	19
(b) Number in (a) transferred from other areas ..	1	1	2
(2) Number of cases in (1) in which attempts were made during the current period outside the scope of the Regulation to persuade the contact to be examined before the latter had been named on a second Form 1	3	15	18
Contacts found	2	11	13
Contacts examined or already under treatment ..	2	9	11
(3) (a) Number of those in (1) in respect of whom two or more Forms 1 were received	—	3	3
(b) Number included in (3) (a) in respect of whom the first Form 1 was previously reported under (1) ..	—	2	2
(c) Number included in (3) (a) transferred from other areas	—	1	1
(4) Number of those in (3) (a) who were—			
(i) Found	—	3	3
(ii) Examined after persuasion or already under treatment	—	3	3
(iii) Served with Form 2	—	—	—

(iv) Prosecuted for failure—

(a) to attend for and submit to medical examination	—	—	—
(b) to submit to and continue treatment ..	—	—	—
(v) Examined after service of Form 2 ..	—	—	—
(vi) Transferred to other areas	—	—	—
(vii) Cannot be found	—	—	—

The Regulation ceased to operate on 31st December, 1947, with the expiry of the emergency enabling statutes, and at the suggestion of the Ministry of Health alternative arrangements were made for the following-up of persons believed to be suffering from venereal disease with a view to persuading them to submit to medical examination and, if necessary, undertake treatment.

Propaganda.

At 112 railway stations in the County over 300 posters were displayed, with the consent of the Railway Companies concerned; they urged the necessity for prompt treatment and gave details of facilities which were available.

In addition, much of the general health propaganda undertaken by the County Council was devoted to the subject of personal hygiene, with special emphasis upon sex and venereal diseases.

Social Worker.

The part-time social worker referred to in the Annual Report for 1946 continued the work of tracing contacts and persuading defaulting patients to attend for treatment at the Clinic at Oldchurch County Hospital, Romford. The total number of defaulters found was 183.

The visiting of defaulting patients in other parts of the County was again carried out by Health Visitors. It may be noted that the advantages of this work being undertaken by Health Visitors seem to be—

- (i) that the Health Visitor has an intimate knowledge of the district;
- (ii) that if the patient is not at home a second visit can be made without appreciable addition to the mileage involved;
- (iii) that the visit of that Health Visitor does not arouse undue speculation, which is important in preserving the confidential character of the visit.

VACCINATION.

During the year ended 31st December, 1946 (the latest period for which complete information is available), the Vaccination Officer's returns which are summarized in Table II on page 15 show that 27,951 births were registered. Of these children, 12,019 were successfully vaccinated, but in 9,470 instances a statutory declaration of conscientious objection was made. Of the remaining 6,462 children, 873 removed to places unknown, and 2,083 removed to districts of other Vaccination Officers who were duly notified. In the case of 210 children, vaccination was postponed by medical certificate. 96 children proved insusceptible to vaccination, and 809 died unvaccinated.

TABLE II

VACCINATION.

Guardians Committee Areas	No. of Births in " Birth List Sheets" registered 1st Jan. to 31st Dec., 1946	No. of these Births entered by 31-1-48 in Cols. I, II, IV and V of the " Vaccination Register " (Birth List Sheets), viz. :—					No. of Births which on 31-1-48 remained unentered in the " Vac- cination Register " on account of:			No. of these Births remaining 31-1-48 neither entered in the " Vaccination Register " nor temporarily accounted for in " Report Book "	No. of Certificates of successful Primary Vaccination of Children under 14 received during 1947	No. of Statutory Declarations of Conscien- tious Objec- tion received by V.O. during 1947
		Col. I. Success- fully vacci- nated	Col. II		Col. IV. No. of Statu- tory Decla- rations	Col. V. Died un- vacci- nated	Post- pone- ment by medical certifi- cate	Removal to Districts the Vaccina- tion Officers of which have been apprised	Removal to places unknown and cases not found			
			Insus- ceptible of vacci- nation	Had Small- pox								
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Braintree ..	920	405	6	—	406	19	—	6	26	52	619	255
Chelmsford ..	3,747	1,717	12	—	1,013	101	20	478	126	280	2,294	925
Colchester ..	3,075	1,642	12	—	971	82	4	192	106	66	2,172	1,110
Epping ..	926	338	10	—	457	27	7	33	24	30	338	437
Saffron Walden ..	508	316	1	—	128	16	3	19	23	2	504	148
Southern ..	9,561	3,848	29	—	3,317	332	93	596	359	987	6,629	3,595
South-Eastern ..	3,664	1,249	11	—	1,294	92	17	539	46	416	1,370	1,493
South-Western ..	5,550	2,504	15	—	1,884	140	66	220	73	648	4,904	2,345
	27,951	12,019	96	—	9,470	809	210	2,083	783	2,481	18,840	10,308

The Total of the figures in columns 3 to 11 agree with the figure in Column 2.

At the end of the year 1947 there remained 2,481 births in respect to which there was no entry in the Vaccination Register and which were not temporarily accounted for in the Vaccination Officer's report book.

HEALTH PROPAGANDA.

Full use was made of the facilities provided in connection with health propaganda during 1947.

The travelling health exhibition was much in demand and attracted an excellent attendance and much interest at the Essex Agricultural Show at Birch Hall, near Colchester, in June.

Central Council for Health Education.

As in previous years the County Council made an annual contribution to the Central Council for Health Education in 1947 amounting to £625. For this sum the Central Council advised and assisted in the promotion of health education programmes and provided lecturers for courses of lectures to the Vange Youth Club, Loughton Parents, the Loughton Youth Centre, the Triptons (Dagenham) Youth Centre, the Romford High School for Girls, the Winchester (Walthamstow) Youth Club and the Aveley Youth Club. The subjects covered included :—" What shall I tell my child ? " " Sex and Personality," " How life is passed on," " Adolescence and Sex " and " Social and Moral Aspects of Sex."

The Central Council also provided films covering various aspects of health and sex education, and posters, pamphlets and leaflets issued by the Central Council were exhibited and distributed at clinics and in connection with the lectures which were given by members of the medical and nursing staff of the Department.

The journals published by the Central Council—" Health Education Journal " and " Nutrition Bulletin "—were supplied regularly during the year and circulated throughout the Department and provided much valuable information for officers concerned with the important subject of health education. The monthly magazine " Better Health " was also obtained in larger quantities and distributed at Combined Treatment Centres.

Royal Society for the Prevention of Accidents.

The County Council also made its annual contribution of £2 2s. 0d. to the Royal Society for the Prevention of Accidents (Home Safety Membership Service), who continued to issue posters, pamphlets and leaflets on the subject of home safety which, as in the case of those issued by the Central Council for Health Education, were of great assistance in connection with the lectures given by members of the medical and nursing staff of the Department.

Lectures.

These lectures given to such bodies as Women's Guilds of various kinds, Women's Institutes, Mothers' Clubs, Church Organizations and Parent-Teacher Associations created much interest and the demand for this form of propaganda is steadily increasing. The subjects which were covered by the lectures included—

Child Welfare ; How Public Health helps Women and Children ; The Curtis Report ; Child Care and Welfare ; Heredity ; The Child Welfare and School Medical Service ; The Maternity and Child Welfare Movement ; Problems of Early Childhood ; Home Helps ; Facilities offered by the County Health Service ; First Aid and Prevention of Accidents in the Home ; Prevention and Treatment of Common Infections of Childhood ; The National Health Service Act, 1946 ; The Scope of the School Health Service ; The Health of the Primary School Child ; Diphtheria Immunization—what it is and how it works ; What shall I tell my Child ? ; History of Public Health ; and Care of the Feet and the Teeth.

A series of twelve lectures at Women's Land Army Hostels in the County was started in 1947.

"The Essex County Health Handbook."

The outstanding event of the year was the publication, in association with Messrs. Ed. J. Burrow & Co., Ltd., of Cheltenham, of *The Essex County Health Handbook*, giving full details of the health services provided by the County Council in handy form, with a foreword by the Chairman of the Public Health and Housing Committee (Lt.-Cdr. H. Denton, R.N. (retired), J.P.). This publication being the first of its kind issued by a County Authority aroused much interest throughout the country, and commendatory notices appeared in both local and national journals, of which the following extracts are two examples :—

" . . . A useful little handbook giving a succinct account of the manifold health services conducted by the County Council and other authorities in the County. With so handy a guide as this available there is no excuse for citizens of the county being ignorant of the admirable facilities which this progressive county authority has provided for them. They have, indeed, every reason to be proud of these services which have been built up over many years and which are still being extended and improved. To authorities who have not yet issued a handbook on their health services we would commend this concise and most informative guide, which is issued from the County Hall, Chelmsford, as a good example of how to do the job."

—Municipal Journal, 26th September, 1947.

" Essex has every reason to be proud of the health services in the county, and, in fact, the County Council has been a pioneer in important health and sanitary provision. No better way of bringing this home to the ordinary citizen and at the same time of marking the centenary year of the Public Health Service could have been taken than by the publication of the attractively bound, printed and illustrated handbook . . . Besides providing an accurate and comprehensive guide to the various existing health authorities and health provision available in the county the handbook gives in short and simple form information in regard to the new national health and hospital services and to the structure of the services to be provided by the County Council as Local Health Authority under the National Health Service Act, 1946. Local health authorities in general would be well advised to follow the example of Essex. . . "

—Public Assistance Journal, 24th October, 1947.

No expense was incurred by the County Council in connection with the publication ; the additional work placed upon the Department in connection with its preparation has been more than justified. No difficulty whatever has been experienced in disposing of the generous supplies made available by the publishers to whom it is a pleasure to pay a tribute for the business-like and efficient manner in which they carried out their part of the production.

LABORATORY SERVICE.

BACTERIOLOGICAL LABORATORY SERVICE. The comprehensive service as outlined in Form P.H. 28, dated March, 1942, and by agreement with the Ministry of Health was continued throughout the year. Specimens were again received and examined at the six laboratories included in that agreement. A summary of the work undertaken at each laboratory is given below on the unit basis which has been in operation since October, 1943 :—

Laboratory.	No. of Units.
Billericay, St. Andrew's Hospital	46,488
Black Notley, Essex County Council Hospital	47,994
Colchester, Essex County Hospital	88,320
Epping, St. Margaret's Hospital	70,415
Oldchurch County Hospital, Romford	25,916
Broomfield, Essex County Council Hospital	5,307
St. John's Hospital, Chelmsford	13,771
Total	298,211

Taken at the average rate of four units per specimen, the total number of specimens were 74,552 for the year 1947, against 61,361 for the year 1946.

SUPPLEMENTARY LABORATORY SERVICE. This is set out in detail in Form P.H. 28a, copies of which have been provided to local Medical Officers of Health. All the work under this service is carried out under an agreement by the Counties Public Health Laboratories, 66, Victoria Street, London, S.W.1. (telephone : Victoria 5838/9)

Below is given a summary of the work for the year 1947 :—

Kind of Sample.	No. of Examinations.
Water	739
Sewage effluents	363
Milk, Ice Cream and other foods	1,358

The number of ice cream samples sent for examination was greater than the previous year. A separate section in this annual report deals with ice cream samples in more detail (see page 24).

OTHER LABORATORY SERVICES. Samples of milk (see page 22), taken from the County Council Hospitals, Institutions and Children's Homes, Schools, Farms, Central Depots and in course of delivery to the consumer are examined by—

Laboratory.	Examination undertaken.
Essex Institute of Agriculture, Writtle	Bacteriological
Dr. A. L. Sheather, Chorley Wood	Biological.

SEWAGE WORKS AND RIVERS POLLUTION.

Table III on pages 19 and 20 gives details of the samples of sewage and trade effluents obtained during the year involving 473 visits and the taking and examining of 358 samples. The results obtained revealed that 161 or 44.9 per cent. were unsatisfactory, as compared to 42.4 per cent. in 1946.

Copies of all results are supplied to the County District Councils and the private firms concerned, and observations are asked for in unsatisfactory cases. There are several instances where marked pollution is taking place by discharges from sewage works provided by County District Councils. Schemes for improving these sewage works have been, or are being, prepared.

			TABLE III		Samples taken.			
Catchment Area.	Sewage Works.	Sanitary District.	No. of Visits.	No. satisfactory or on border line.	No. unsatisfactory.	Total.		
Beam ..	Romford and Hornchurch Jt.	Romford B. and Hornchurch U.	.. 4 ..	3	9	12		
Blackwater	Bocking ..	Braintree and Bocking U.	.. 4 ..	1	3	4		
Do. ..	Coggeshall ..	Braintree R.	.. 5 ..	1	3	4		
Do. ..	Kelvedon ..	Do.	.. 5 ..	2	2	4		
Do. ..	Silver End ..	Witham U.	.. 4 ..	2	2	4		
Do. ..	Tillingham ..	Maldon R.	.. 3 ..	2	—	2		
Do. ..	Witham ..	Witham U.	.. 4 ..	2	2	4		
Brain ..	Braintree ..	Braintree and Bocking	.. 5 ..	—	4	4		
Do. ..	White Notley	Braintree R.	.. 5 ..	4	—	4		
Cam ..	Newport ..	Saffron Walden R.	.. 4 ..	2	1	3		
Do. ..	Saffron Walden	Saffron Walden B.	.. 3 ..	—	3	3		
Chelmer	Chelmsford	Chelmsford B.	.. 2 ..	1	1	2		
Do. ..	Dunmow ..	Dunmow R.	.. 5 ..	—	6	6		
Do. ..	Felstead ..	Do.	.. 5 ..	2	2	4		
Do. ..	Thaxted ..	Do.	.. 5 ..	—	4	4		
Colne ..	Earls Colne..	Halstead R.	.. 5 ..	4	—	4		
Do. ..	Halstead ..	Halstead U.	.. 6 ..	1	3	4		
Do. ..	Layer Breton	Lexden and Winstree R.	.. 4 ..	—	2	2		
Do. ..	Sible Hedingham	Halstead R.	.. 5 ..	—	4	4		
Do. ..	Tiptree ..	Lexden and Winstree R.	.. 5 ..	4	—	4		
Do. ..	Great Bentley	Tendring R.	.. 5 ..	3	1	4		
Crouch	Burnham ..	Burnham U.	.. 2 ..	—	—	—		
Do. ..	Great Burstead	Billericay U.	.. 4 ..	4	—	4		
Do. ..	Laindon ..	Do.	.. 5 ..	—	4	4		
Do. ..	Wickford ..	Do.	.. 1 ..	—	—	—		
Do. ..	Wickford (Louvaine Avenue)	Do.	.. 4 ..	2	2	4		
Holland Brook	Thorpe-le-Soken	Tendring R.	.. 4 ..	4	—	4		
Ingrebourne	Brentwood	Brentwood U.	.. 5 ..	3	2	5		
Kirby Creek	Kirby-le-Soken	Frinton and Walton U.	.. 5 ..	1	2	3		
Carried forward .. ..			.. 123 ..	48	62	110

Catchment Area.	Sewage Works.	Sanitary District.	No. of Visits.	Samples taken.			Total.
				No. satisfactory or on border line.	No. unsatisfactory.		
	Brought forward	.. ..	.. 123 ..	48	62		110
Mardyke	.. Bury Farm ..	Hornchurch U.	.. 5 ..	3	2		5
Do.	.. South Ockendon ..	Thurrock U.	.. 4 ..	4	—		4
Do.	.. Orsett ..	Do.	.. 6 ..	1	4		5
Do.	.. Thorndon Park ..	Brentwood U.	.. 4 ..	4	—		4
	Estate (Southern)						
Ramsey	.. Dovercourt ..	Harwich B.	.. 5 ..	—	4		4
Roach	.. Butlers Farm Camp, ..	Rochford R.	.. 4 ..	2	2		4
	Shopland						
Do.	.. Rayleigh (East) ..	Rayleigh U.	.. 4 ..	—	3		3
Do.	.. Great Stambridge ..	Rochford R.	.. 5 ..	4	—		4
Do.	.. Great Wakering ..	Do.	.. 5 ..	4	—		4
Roding	.. Abridge ..	Ongar R. ..	.. 4 ..	3	—		3
Do.	.. Chigwell ..	Chigwell U.	.. 4 ..	4	—		4
Do.	.. Chigwell Row ..	Do.	.. 4 ..	1	2		3
Do.	.. Epping Southern ..	Epping U.	.. 4 ..	3	1		4
Do.	.. Moreton, New Council	Ongar R. ..	.. 2 ..	—	1		1
	Houses						
Do.	.. Moreton ..	Ongar R. ..	.. 1 ..	—	1		1
Do.	.. North Weald ..	Epping R.	.. 3 ..	3	—		3
Do.	.. Stanford Rivers ..	Ongar R. ..	.. 4 ..	2	—		2
Do.	.. Theydon Bois ..	Epping R.	.. 3 ..	2	—		2
Do.	.. Theydon Mount ..	Ongar R. ..	.. 2 ..	—	1		1
	Council Houses						
Do.	.. Wanstead ..	Wanstead and Woodford B.	.. 4 ..	3	1		4
Do.	.. Woodford (East) ..	Do.	.. 4 ..	2	2		4
Sea	.. Great Holland ..	Frinton and Walton U.	3 ..	1	2		3
Do.	.. St. Osyth (East) ..	Tendring ..	.. 5 ..	2	2		4
Do.	.. St. Osyth (West) ..	Do. ..	.. 5 ..	1	3		4
Do.	.. Little Oakley ..	Do. ..	.. 5 ..	3	1		4
Stort	.. Hatfield Broad Oak ..	Dunmow R.	.. 5 ..	2	2		4
Do.	.. Hatfield Heath ..	Do.	.. 5 ..	3	—		3
Stour	.. Dedham ..	Lexden and Winstree	5 ..	2	2		4
Do.	.. Lawford ..	Tendring R.	.. 4 ..	—	3		3
Do.	.. Parkeston ..	Do.	.. 1 ..	—	—		—
Do.	.. Steeple Bumpstead ..	Halstead R.	.. 5 ..	1	2		3
Ter	.. Hatfield Peverel ..	Braintree R.	.. 5 ..	2	2		4
Wid	.. Billericay ..	Billericay U.	.. 5 ..	2	2		4
Do.	.. Ingatestone ..	Chelmsford R.	.. 4 ..	1	2		3
Do.	.. Mountnessing ..	Do.	.. 3 ..	1	2		3
Do.	.. Shenfield and ..	Brentwood U.	.. 4 ..	4	—		4
	Hutton, etc.						
Do.	.. Thorndon Park ..	Do.	.. 4 ..	4	—		4
	Estate (Northern)						
	Aerodromes and Military Camps ..	..	.. 90 ..	48	16		64
	Other samples including private sewage works, rivers, streams, ditches, etc. ..	..	.. 73 ..	25	21		46
	Trade effluents ..	..	.. 38 ..	2	13		15
Total ..			.. 473 ..	197	161		358

RURAL WATER SUPPLIES AND SEWERAGE ACT, 1944.

This Act placed at the disposal of the Minister of Health a sum of £15,000,000 to assist schemes prepared by Local Sanitary Authorities for the provision or improvement of water supply and for the provision of sewerage facilities in rural localities in England and Wales.

Under Section 2 of the Act, if the Minister undertakes to make a contribution for either a water or sewage scheme, the County Council concerned is also required to contribute. Consequently, Local Authorities must obtain for submission to the Ministry of Health the County Council's observations on all schemes for which applications are to be made for grants.

Up to 31st December, 1947, the Essex County Council had been asked for their observations upon schemes submitted by two Borough, six Urban and eleven Rural District Councils and estimated to cost £1,913,000 largely based on 1938 prices.

At the time of writing the Ministry of Health has undertaken provisionally to allocate lump sum grants towards the cost of the following schemes :—

	Estimated Cost.	Provisional Grant by Ministry of Health.
	£	£
Tendring Rural Western Area Water Supply Scheme	76,400	35,000
Chelmsford Rural Water Mains Extension Scheme	44,212	20,000
Chelmsford Rural Sewerage Scheme ..	55,934	23,000
Chelmsford Rural Water Mains Extension Scheme	12,235	4,000
Chelmsford Rural Water Mains Extension Scheme	1,726	600

PUBLIC HEALTH ACT, 1936. SECTION 307.

CONTRIBUTIONS TO RURAL DISTRICT COUNCILS. In accordance with the provision of the County Council's approved Scheme to give effect to Section 307 of the Public Health Act, 1936, and the Rural Water Supplies and Sewerage Act, 1944, the County Council agreed to make to the undermentioned Rural District Councils payment of the following amounts, being the approved estimated grants payable in respect of the financial year, 1947-48 :—

Rural District.	Amount. £
Braintree	4,944
Dunmow	3,089
Epping	905
Halstead	741
Lexden and Winstree	482
Ongar	1,733
Rochford	1,455
Saffron Walden	2,717
Tendring	107
	<hr/>
	£16,173

MILK SUPPLY.

Milk (Special Designations) Regulations, 1936-48.

(a) LICENCES. The number of licences to produce Tuberculin Tested milk again increased throughout the year 1947, and the decrease in the number of licences to produce Accredited milk continued. Comparative figures for 1946 and 1947 are given below :—

Grade of Milk.	No. of Licences.	
	1946.	1947.
Tuberculin Tested milk	308	402
Accredited milk	680	629
	<hr/>	<hr/>
	988	1,031
	<hr/>	<hr/>

Below is given a summary of the action taken by the Milk Sub-Committee in regard to contraventions of the Regulations, more particularly in regard to several consecutive unsatisfactory samples of milk :—

No. of licences refused	3
No. of written cautions	19
No. of notices of intention to revoke licences	76
No. of licences revoked	26
No. of appeals (unsuccessful) made to Ministry of Health during year ..	4
No. of suspensions	Nil.

(b) SAMPLES OF DESIGNATED MILK. Samples taken from farms and central depots in 1947 numbered 5,518 compared to 4,688 for 1946. This increase was due mainly to additional temporary sampling staff.

Every sample is submitted to the Methylene Blue Reduction Test, but samples are also put to the Coliform Bacteria Test during the pre-licence period and where circumstances demand. The following table summarizes the results of the Methylene Blue Reduction Test only :—

Quarter ended.	Total.	Satisfactory.		Unsatisfactory.	
		No.	per cent.	No.	per cent. (1946).
31st March ..	1,113	1,071	96.2	42	3.8 (5.0)
30th June ..	1,636	1,281	78.3	355	21.7 (12.7)
30th September ..	1,421	806	56.7	615	43.3 (27.9)
31st December ..	1,348	1,276	94.7	72	5.3 (5.2)
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	5,518	4,434	80.4	1,084	19.6 (13.2)

It will be seen that the increase in the number of unsatisfactory samples occurred during the warm summer months.

Assistance was again made available by the Essex Institute of Agriculture to those licensees who had difficulty in producing satisfactory samples of milk.

(c) **NEW BUILDINGS AND IMPROVEMENTS TO EXISTING BUILDINGS.** Much more time was spent on advisory work. This includes advising on the adaptation and improvement of existing cowsheds, cooling rooms and washing-up rooms, and in the preparation of sketch plans and specifications. All this is complementary to the County Health Inspector's work on the Building Panel of the County Agricultural Executive Committee.

(d) **WATER SUPPLIES TO FARMS.** The Grant-in-Aid Scheme formulated by the Ministry of Agriculture and Fisheries has operated throughout the year. Every application for assistance is considered by the Water Supplies Panel of the County Agricultural Executive Committee. The County Health Inspector serves on this Panel, and by this means keeps in touch with the work and is able to advise upon the public health aspects of each scheme.

(e) **NATIONAL MILK TESTING AND ADVISORY SERVICE.** This service provided by the Essex Agricultural Executive Committee was extended during the year. Unsatisfactory producers of ordinary raw milk were reported to and considered by the Milk Production Sub-Committee, upon which the County Council has two representatives.

Biological Examinations.

Reports were received on 453 samples of milk taken during routine visits to farms and central depots, giving the following results :—

- 17 inconclusive.
- 432 free from tubercle bacilli.
- 4 (0.9 per cent.) contained tubercle bacilli, compared with 3.5 per cent. for 1946.

Every positive case was followed up by the Divisional Inspector of the Ministry of Agriculture and Fisheries.

Milk-in-Schools Scheme.

Endeavours are made to sample the milk supplied by each approved purveyor during each school term. This year, the following samples were obtained at the schools by the Weights and Measures Inspectors, and examined as indicated :—

(a) BIOLOGICAL EXAMINATIONS.

- 7 inconclusive.
- 144 free from tubercle bacilli.

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These results compare favourably with the 1946 figures which indicated that 2 (1.2 per cent.) samples out of 178 were found to contain tubercle bacilli.

- ##### **(b) BACTERIOLOGICAL EXAMINATIONS.** 312 samples were obtained, 49 (15.7 per cent.) failing to pass the prescribed tests. Every unsatisfactory sample was followed up.

(c) SURVEY. During the year a survey was made of the work of the Milk-inn Schools Scheme at a number of schools in the County. Opportunity was taken to check the source and quality of the milk supplied, its method of delivery, storage, treatment (if any), and how actually given to the child. Various improvements were suggested, and in some cases supplies of drinking straws were arranged where required. At none of the schools visited was there any wastage of milk.

ICE CREAM.

The Ice Cream (Heat Treatment, etc.) Regulations, 1947, came into operation on 1st May, 1947, except for the requirements relating to thermometers which do not apply until a date to be appointed by the Minister of Health. These Regulations set out the requirements which must be observed in the manufacture of ice cream intended for sale for human consumption. The Authorities for enforcing and executing these Regulations are Local Authorities within the meaning of Section 64 of the Food and Drugs Act, 1938, namely, County District Councils.

In Circular 69/47, dated 10th April, 1947, the Minister stated he had given further consideration to the prescription in the Regulations of a bacteriological standard of cleanliness for ice cream but he is still not satisfied that there is any test, the reliability of which is sufficiently established to justify its use as a statutory test, non-compliance with which would constitute an offence. The Minister drew attention to a report of a Special Sub-Committee which appeared in the *Monthly Bulletin* for March, 1947, and which gave particulars of a form of methylene blue test adapted for testing ice cream. He had been advised that this test of bacterial cleanliness appeared to provide the best available for the present purpose. It was simple and cheap to perform, and associated with it were four grades tentatively defined as follows :—

Grade 1 ..	Time taken to reduce Methylene Blue ..	4½ hours or more.
Grade 2 ..	Time taken to reduce Methylene Blue ..	2½ to 4 hours.
Grade 3 ..	Time taken to reduce Methylene Blue ..	½ to 2 hours.
Grade 4 ..	Time taken to reduce Methylene Blue ..	0 hours (i.e. reduction at the end of the pre incubation period).

The Minister suggests that if, out of the four grades recommended, ice cream consistently fails to reach Grades one and two, it would be reasonable to regard this as indicating defects of manufacture or of handling which call for further investigation.

Under the County Council's supplementary laboratory service undertaken by the Counties Public Health Laboratories, 66, Victoria Street, London, S.W.1. (Telephone Victoria 5838/9), provision is made for the free examination of samples of ice cream submitted by local Medical Officers of Health and Sanitary Inspectors. To secure uniformity in sampling, the following instructions were issued :—

(1) THE QUANTITY REQUIRED is the equivalent of about two standard serversful.

(2) SAMPLES BOUGHT OR TAKEN FROM RETAILER. The method should conform, nearly as possible, to conditions of sale. The sample should be taken by the retailer, using his own utensils, in the normal way. The sample should be taken from the surface as it would be were it for sale to the ordinary customer. It should be placed by the retailer in a jar, which should be held by the inspector.

Wafers and cornets should *not* be prepared in the usual way. The ice cream should be taken by the scoop as usual but should be placed in the jar without coming in contact with the biscuit.

Wrapped brickettes. If the inspector is satisfied that the sample will not melt in transit, the wrapped product (i.e. including the paper), should be placed in the sample jar. Otherwise the paper should be removed by holding at one end and, starting from the other end, the ice cream carefully released into the jar.

Cartons of ice cream may be sent intact, in their container, provided care is taken to use sufficient solid CO₂ to ensure that the product does not thaw out on the journey. (Ice should not be used, in this case, as it does not cool sufficiently). Alternatively, some of the product may be taken from the carton, using aseptic precautions, and placed in the jar.

(3) SAMPLES TAKEN FROM MANUFACTURER OR WHOLESALE should be taken with aseptic precautions, by the inspector himself.

The spoon, scoop or spatula should be sterilized by steam or by boiling in water for five minutes.

(4) PACKING. The samples should be packed with ice or solid CO₂, and sent to the Laboratory by the quickest route available (by hand or passenger train—not by post). When sample cases are sent by railway, the sender should address them to the appropriate London terminus, see them handed to the guard of the train, and notify the Laboratory of the E(xpected) T(ime of) A(rrival) by telephone or telegram.

(5) It is pointed out that it is unnecessary to remove the parchment wrapping from sampling jars. The string should be untied and the lid may then be removed by grasping it in the parchment.

(6) DETAILS OF SAMPLES. It will be appreciated if inspectors will take care to complete the form fully, including information as to whether the product is HEAT-TREATED or COLD MIX, and the type of product—e.g. “brickette,” “loose,” “choc-ice,” etc.

In the cases where the usual methods have failed to persuade a dealer to remedy an unsatisfactory product, and legal proceedings are considered, a special sampling box and sterile bottles can be borrowed from The Counties Public Health Laboratories for the purpose of obtaining formal samples. Such samples should be taken to the laboratory by the inspector himself.

If not used, this outfit should be returned at an early date, as in these difficult times only a limited number of outfits are in stock.

WEEKEND SAMPLES. In order to meet with the requirements of those desirous of taking samples at the weekend, the Counties Public Health Laboratories will be open on Sundays from 2.30 to 4.30 p.m. from May–September, inclusive. Samples taken under this arrangement should be taken to the Laboratories by hand, in view of the transport difficulties on that day. A (night) bell and name plate are fitted at the front door of the building for summoning the Laboratory staff to the front door which is locked on Sundays.

It will be appreciated if inspectors intending to submit samples on a Sunday will inform the laboratory of that intention on the previous Friday.

SAMPLING JARS. In view of the difficulty of obtaining replacements it will be much appreciated if inspectors will return to the laboratory any jars that are not required for immediate use and all jars which were sterilized more than three months previously.

During 1947, samples of ice cream were submitted under this supplementary laboratory service from 28 out of 44 County District Councils. Each sample was submitted where practicable to the methylene blue test, plate count, coliform test and Bact. Coli test. The results of these tests which are given in Table IV on page 26 are summarized below :—

TABLE IV—Showing the results of the tests made on Ice Cream samples during 1947.

District	Methylene Blue Test Ministry of Health Gradings					Plate Count Test			Coliform Test			Bact. Coli. Test			No. of samples satis- factory	No. of samples unsatis- factory	Total No. of Samples	Percentage of samples unsatis- factory	
	1	2	3	4	Ungraded	Total	Satis- factory	Unsatis- factory	Total	Satis- factory	Unsatis- factory	Total	Satis- factory	Unsatis- factory					
BILLERICAY U. ..	—	1	4	3	1	9	4	5	9	3	6	9	5	4	9	3	6	9	66.7
BRAINTREE AND BOCKING U. ..	3	3	3	6	1	16	12	4	16	6	10	16	11	5	16	11	5	16	31.3
BRENTWOOD U. ..	—	7	13	8	—	28	23	5	28	8	20	28	20	8	28	16	12	28	42.9
BRIGHTLINGSEA U. ..	—	1	—	1	—	2	2	—	2	—	2	2	1	1	2	1	1	2	50.0
CHELMSFORD B. ..	27	25	18	28	—	98	75	23	98	54	44	98	80	18	98	69	29	98	29.6
CHIGWELL U... ..	9	7	3	1	2	22	19	3	22	13	9	22	19	3	22	19	3	22	13.6
CHINGFORD B. ..	4	7	8	5	1	25	19	6	25	6	19	25	22	3	25	19	6	25	24.0
CLACTON U. ..	5	8	12	31	—	56	30	26	56	13	43	56	32	24	56	23	33	56	58.9
COLCHESTER B. ..	3	5	4	5	—	17	13	4	17	4	13	17	10	7	17	10	7	17	41.2
DAGENHAM B. ..	9	21	24	14	5	73	62	11	73	31	42	73	66	7	73	59	14	73	19.2
EPPING U. ..	3	2	2	8	4	19	9	10	19	7	12	19	11	8	19	7	12	19	63.2
FRINTON AND WALTON U. ..	1	1	1	1	—	4	4	—	4	2	2	4	3	1	4	3	1	4	25.0
HORNCHURCH U. ..	10	6	9	12	—	37	26	11	37	20	17	37	29	8	37	25	12	37	32.4
ILFORD B. ..	9	10	5	9	—	33	30	3	33	22	11	33	32	1	33	30	3	33	9.1
LEYTON B. ..	4	17	10	20	2	53	38	15	53	20	33	53	42	11	53	34	19	53	35.8
MALDON B. ..	—	—	1	—	—	1	1	—	1	1	—	1	1	—	1	1	—	1	0.
ROMFORD B.... ..	2	11	5	6	—	24	20	4	24	8	16	24	19	5	24	16	8	24	33.3
THURROCK U. ..	12	10	1	3	1	27	24	3	27	18	9	27	23	4	27	22	5	27	18.5
WALTHAM HOLY CROSS U. ..	2	1	3	2	—	8	5	3	8	2	6	8	4	4	8	4	4	8	50.0
WALTHAMSTOW B. ..	8	10	8	11	—	37	35	2	37	18	19	37	32	5	37	30	7	37	18.9
WANSTEAD AND WOODFORD B. ..	2	6	8	9	—	25	16	9	25	5	20	25	19	6	25	14	11	25	44.0
WITHAM U.	1	2	2	1	—	6	5	1	6	3	3	6	5	1	6	4	2	6	33.3
BRAINTREE R. ..	—	2	2	4	—	8	7	1	8	2	6	8	5	3	8	5	3	8	37.5
EPPING R. ..	1	3	3	7	1	15	10	5	15	7	8	15	13	2	15	9	6	15	40.0
HALSTEAD R. ..	—	1	1	—	—	2	2	—	2	2	—	2	2	—	2	2	—	2	—
ONGAR R.	1	3	1	2	—	7	4	3	7	3	4	7	4	3	7	4	3	7	42.9
ROCHFORD R. ..	—	1	1	—	—	2	2	—	2	2	—	2	2	—	2	2	—	2	—
TENDRING R. ..	1	—	2	—	—	3	1	2	3	1	2	3	2	1	3	1	2	3	66.7
TOTALS ..	117	171	154	197	18	657	498	159	657	281	376	657	514	143	657	443	214	657	32.6

TABLE V showing the number of samples of Ice Cream taken during each month in 1947.

District	Jan.		Feb.		March		April		May		June		July		August		Sept.		Oct.		Nov.		Dec.		Totals	
	Satis- factory	Unsatis- factory	Satis- factory	Unsatis- factory	Satis- factory	Unsatis- factory	Satis- factory	Unsatis- factory	Satis- factory	Unsatis- factory	Satis- factory	Unsatis- factory	Satis- factory	Unsatis- factory	Satis- factory	Unsatis- factory	Satis- factory	Unsatis- factory	Satis- factory	Unsatis- factory	Satis- factory	Unsatis- factory	Satis- factory	Unsatis- factory	Satis- factory	Unsatis- factory
BILLERICAY U.	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	1	4	—	—	—	—	3	6
BRAINTREE AND BOCKIN U.	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	11	5
BRENTWOOD U.	—	—	—	—	—	—	—	—	2	—	3	—	5	8	—	1	—	—	3	—	—	—	—	—	16	12
BRIGHTLINGSEA U.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1
CHELMSFORD B.	—	—	—	—	—	—	—	—	1	—	8	—	8	—	3	2	—	—	18	1	4	4	2	—	69	29
CHIGWELL U...	—	—	—	—	—	—	—	—	—	—	9	—	10	—	9	1	—	—	3	—	—	—	—	—	19	3
CHINGFORD B.	—	—	—	—	—	—	—	—	—	—	—	—	3	—	3	2	—	—	—	—	—	—	—	—	19	6
CLACTON U.	—	—	—	—	—	—	—	—	—	—	—	—	7	12	9	13	—	—	2	3	—	—	—	—	23	33
COLCHESTER B.	—	—	—	—	—	—	—	—	—	—	—	—	8	—	5	5	—	—	3	1	—	—	—	—	10	7
DAGENHAM B.	—	—	—	—	—	—	—	—	1	—	2	—	9	4	—	—	—	—	—	—	—	—	—	—	59	14
EPPING U.	2	—	—	—	—	—	—	—	—	—	6	—	2	4	—	—	—	—	—	—	—	—	—	—	7	12
FRINTON AND WALTON U.	—	—	—	—	—	—	—	—	—	—	—	—	1	3	—	—	—	—	—	—	—	—	—	—	3	1
HORNCHURCH U.	—	—	—	—	—	—	—	—	—	—	—	—	3	—	7	5	—	—	—	—	—	—	—	—	25	12
ILFORD B.	—	—	—	—	—	—	—	—	—	—	4	—	8	—	9	1	—	—	—	—	—	—	—	—	30	3
LEYTON B.	—	—	—	—	—	—	—	—	—	—	6	—	—	8	—	3	—	—	—	—	—	—	—	—	34	19
MALDON B.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	7	—	—	—	—	—	—	—	—	—	1	8
ROMFORD B...	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	—	—	—	—	—	—	—	—	—	16	5
THURROCK U.	1	—	—	—	—	—	—	—	—	—	2	—	2	2	3	2	—	—	3	1	—	—	—	—	22	4
WALTHAM HOLY CROSS U.	—	—	—	—	—	—	—	—	—	—	—	—	2	1	—	—	—	—	—	—	—	—	—	—	4	7
WALTHAMSTOW B.	—	—	—	—	—	—	—	—	—	—	4	—	2	2	—	—	—	—	—	—	—	—	—	—	30	11
WANSTEAD AND WOODFORD B.	—	—	—	—	—	—	—	—	—	—	3	—	7	—	3	4	—	—	—	—	—	—	—	—	14	2
WITHAM U.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	6	—	—	—	—	—	—	—	—	—	4	3
BRAINTREE R.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	3	1	—	—	—	—	—	—	—	—	5	6
EPPING R.	—	—	—	—	—	—	—	—	—	—	1	—	1	3	2	—	—	—	—	—	—	—	—	—	9	2
HALSTEAD R.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	2	3
ONGAR R.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	4	3
ROCHFORD R.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—
TENDRING R.	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	—	—	—	—	—	1	2
TOTALS	4	—	—	—	1	—	25	1	42	13	81	38	86	63	77	54	64	31	36	10	19	4	8	—	443	214

- (a) *Methylene Blue Test*. 639 samples. 117 in Grade 1 ; 171 in Grade 2 ; 154 in Grade 3 and 197 in Grade 4. 351 cases (or 54.9 per cent.) therefore failed to reach Grades 1 and 2.
- (b) *Plate Count*. 657 samples. 498 (or 75.8 per cent.) passed the test and 159 (or 24.2 per cent.) failed to pass the test.
- (c) *Coliform Test*. 657 samples. 281 (or 42.7 per cent.) passed the test and 376 (or 57.2 per cent.) failed to pass the test.
- (d) *Bact. Coli Test*. 657 samples. 514 (or 78.2 per cent.) passed the test and 143 (or 21.8 per cent.) failed to pass the test.

CONCLUSIONS REACHED BY THE LABORATORY. In every report an endeavour was made to classify the sample as satisfactory or unsatisfactory. For this purpose, the plate count and bact. coli test only were the guide to reaching these conclusions, giving the following results :—

Satisfactory	..	..	..	..	443	(67.5 per cent.)
Unsatisfactory	..	..	..	..	214	(32.5 per cent.)
					657	

MONTHLY RESULTS. It will be seen in Table V on page 27, that 498 out of 657 samples were taken in the months of June to September inclusive when ice cream is in greatest demand. The higher atmospheric temperature during these four months is reflected in the results of the tests, namely :—

Month.	No. of Samples.				No. Unsatisfactory.	
June	119	..	38	(31.9 per cent.)
July	149	..	63	(42.3 per cent.)
August	131	..	54	(41.2 per cent.)
September	95	..	31	(32.6 per cent.)

RURAL HOUSING.

The Joint Advisory Committee on Rural Housing, which held its first Meeting in 1944, met on 28th May and 13th December, 1947, and 1st January, 1948.

On 3rd May, 1948, the Joint Clerks in their Annual Report dealt with the following matters :—

RECONDITIONING IN RURAL AREAS. The Fourth Report of the Rural Housing Sub-Committee of the Central Housing Advisory Committee was received, and having obtained and considered the views of the Rural District Councils upon such Report, the Committee requested the Minister of Health to implement the recommendations contained therein, subject to adequate safeguards being inserted in the event of non-compliance with the conditions of grant.

Following the receipt from the Ministry of Health of a letter indicating that the Minister remains of the opinion that for the present time the most urgent need is to concentrate as much labour and materials as can be made available

PROVISION OF PERMANENT AND TEMPORARY HOUSING ACCOMMODATION

Rural District/Council	Permanent Housing Sites						Temporary Housing Sites					
	No. of Sites acquired			Acreage of Sites			No. of Houses capable of being erected on Sites			No. of Sites acquired		
	Period ended 30th Sept. 1947	Quarter ended		Period ended 30th Sept. 1947	Quarter ended		Period ended 30th Sept. 1947	Quarter ended		Period ended 30th Sept. 1947	Quarter ended	
		31st Dec. 1947	31st Mar. 1948		31st Dec. 1947	31st Mar. 1948		31st Dec. 1947	31st Mar. 1948		31st Dec. 1947	31st Mar. 1948
BRAINTREE	*13	—	1	*45.81	—	13.36	*258	—	78	5	3	—
CHELMSFORD	28	5	1	104.087	22.967	3.2	831	184	24	5	—	—
DUNMOW	20	—	4	84	—	16	426	—	80	—	—	—
EPPING	19	—	—	109	—	—	804	—	—	—	—	—
HAILESTAD	27	—	—	30.02	—	—	218	—	—	4	—	—
LEXDEN AND WINSTREE	30	1	—	52.25	1.40	—	236	8	—	—	—	—
MALDON	16	—	—	80.08	—	—	506	—	—	—	—	—
ONGAR	14	—	—	95.670	—	—	628	—	—	6	—	—
ROCHFORD	6	4	1	51.56	8.9	0.867	**456	84	8	—	—	—
SAFFRON WALDEN ..	32	—	—	80.86	—	—	513	—	—	7	—	—
TENDRING	27	—	1	89.90	—	8.8	590	—	50	2	—	—

* Does not include sites in hand before war for which post war approval of Ministry of Town and Country Planning has not been obtained.

† Some huts demolished, 4 dwellings less.

‡ Does not include 8 erected on part of a permanent site.

** Due to amended layout plans.

LOCAL AUTHORITY—PERMANENT HOUSING

Rural District Council	No. of houses in respect of which House Plans approved			No. of houses in respect of which tenders have been invited			No. of houses in respect of which tenders have been submitted to Ministry of Health			No. of houses in respect of which tenders have been approved by Ministry of Health			No. of houses under construction			No. of houses completed	
	Period ended 30th Sept. 1947	Quarter ended		Period ended 30th Sept. 1947	Quarter ended		Period ended 30th Sept. 1947	Quarter ended		Period ended 30th Sept. 1947	Quarter ended		Period ended 30th Sept. 1947	Quarter ended		Period ended 30th Sept. 1947	Quarter ended 31st Mar. 1948
		31st Dec. 1947	31st Mar. 1948		31st Dec. 1947	31st Mar. 1948		31st Dec. 1947	31st Mar. 1948		31st Dec. 1947	31st Mar. 1948		31st Dec. 1947	31st Mar. 1948		
BRAINTREE	92	10	28	86	10	28	86	10	28	86	10	28	72	54	62	10	22
CHELMSFORD	246	48	14	246	48	14	236	48	14	228	30	46	186	174	192	42	22
DUNMOW	326	58	40	158	—	22	150	6	20	134	—	18	132	111	108	—	21
EPPING	554	—	—	372	—	—	306	22	—	260	22	—	194	142	—	34	72
HALESTAD	186	—	—	108	—	—	98	—	—	98	—	—	24	56	—	32	4
LEXDEN AND WINSTREE	—	—	—	156	14	—	156	14	—	136	—	22	88	18	18	38	25
MALDON	210	—	—	134	—	8	128	12	8	114	8	12	76	8	12	20	10
ONGAR	158	4	—	158	4	—	158	4	—	134	28	—	64	24	92	54	16
ROCHFORD	*116	24	—	*116	—	—	*116	—	—	*116	—	—	74	40	2	18	11
SAFRON WALDEN ..	326	—	—	94	14	8	94	14	8	74	—	10	68	68	2	6	—
TENDRING	†140	—	50	†140	—	50	†140	—	26	†140	—	—	58	60	56	70	8

*10 houses shown in last return now deleted, tenders not approved.
†Amended figures.

LOCAL AUTHORITY—TEMPORARY HOUSING

Rural District Council	No. of houses in respect of which House Plans approved			No. of houses in respect of which tenders have been submitted to Ministry of Health			No. of houses in respect of which tenders have been approved by Ministry of Health			No. of houses under construction			No. of houses completed	
	Period ended 30th Sept. 1947	Quarter ended		Period ended 30th Sept. 1947	Quarter ended		Period ended 30th Sept. 1947	Quarter ended		Period ended 30th Sept. 1947	Quarter ended		Period ended 30th Sept. 1947	Quarter ended 31st Mar. 1948
		31st Dec. 1947	31st Mar. 1948		31st Dec. 1947	31st Mar. 1948		31st Dec. 1947	31st Mar. 1948		31st Dec. 1947	31st Mar. 1948		
BRAINTREE	29	9	—	—	—	—	—	—	—	—	*9	8	*21	*9 3
CHELMSFORD	90	—	—	90	—	—	90	—	—	20	—	—	70	20
DUNMOW	—	—	—	—	—	—	—	—	—	—	—	—	—	—
EPPING	—	—	—	—	—	—	—	—	—	—	—	—	—	—
HALSTEAD	—	—	—	—	—	—	—	—	—	20	30	—	—	—
LEXDEN AND WINSTREE	—	—	—	—	—	—	—	—	—	—	—	—	—	—
MALDON	—	—	—	—	—	—	—	—	—	—	—	—	—	—
ONGAR	75	—	—	75	—	—	75	—	—	35	—	—	50	25
ROCHFORD	—	—	—	—	—	—	—	—	—	—	—	—	—	—
SAFFRON WALDEN ..	—	—	—	—	—	—	61	—	—	40	6	—	21	34 6
TENDRING	77	—	—	77 (Site Works)	—	—	77 (Site Works)	—	—	77	47	—	—	30 47

*By direct labour.

PRIVATE ENTERPRISE

Rural District Council	Permanent Housing						Temporary Housing												
	No. of houses in respect of which House Plans have been approved			No. of houses under construction			No. of houses completed			No. of houses in respect of which House Plans have been approved			No. of houses under construction			No. of houses completed			
	Period ended 30th Sept. 1947	Quarter ended		Period ended 30th Sept. 1947	Quarter ended	Period ended 30th Sept. 1947	Quarter ended		Period ended 30th Sept. 1947	Quarter ended	Period ended 30th Sept. 1947	Quarter ended		Period ended 30th Sept. 1947	Quarter ended		Period ended 30th Sept. 1947	Quarter ended	
		31st Dec. 1947	31st Mar. 1948				31st Dec. 1947	31st Mar. 1948				31st Dec. 1947	31st Mar. 1948		31st Dec. 1947	31st Mar. 1948		31st Dec. 1947	31st Mar. 1948
BRAINTREE	—	11 (e)	8	17	11	7	—	6	5	—	2 (e)	—	1	—	—	1	—	—	
CHELMSFORD	14	4	—	44	41	33	30	13	11	1	4	—	2	3	—	2	—	—	
DUNMOW	91	5	19	25	9	8	46	8	1	10	2	1	6	10	9	5	2	—	
EPPING	114	118	—	27	21	—	83	90	—	—	—	—	—	—	—	—	—	—	
HALSTEAD	—	—	—	16	12	—	32	4	—	—	—	—	—	—	—	—	—	—	
LEXDEN AND WINSTREE	114	*11	*6	16	7	12	45	8	1	*16	*1	*1	3	3	3	10	—	1	
MALDON	68	22	16	9	—	3	14	16	1	1	—	—	—	—	1	—	—	—	
ONGAR	71	6	—	13	—	—	47	4	2	—	—	—	—	—	—	—	—	—	
ROCHFORD	141	7	11	6	9	12	126	5	12	—	—	—	—	—	—	—	—	—	
SAFFRON WALDEN ..	62	3	6	12	8	7	28	4	2	13	2	2	2	2	—	—	—	—	
TENDRINO	63	—	11	22	15	9	40	8	10	4	8	5	6	2	—	11	1	3	

*68 houses included in these columns have been approved under Council's Building Regulations.

*68 houses included in these columns have been approved under Council's Resolution No. 1.

(a) Refers to plans approved under By-laws 18. Does not mean to infer that a building Licence will be issued.

REQUISITIONED PROPERTIES.

Rural District Council	Permanent						Temporary					
	No. of Agreements between Local Authority and owners of property			No. of requisitions transferred to Local Authority			No. of agreements between Local Authority and owners of property			No. of requisitions transferred to Local Authority		
	Period ended 30th Sept. 1947	Quarter ended 31st Dec. 1947	Quarter ended 31st Mar. 1948	Period ended 30th Sept. 1947	Quarter ended 31st Dec. 1947	Quarter ended 31st Mar. 1948	Period ended 30th Sept. 1947	Quarter ended 31st Dec. 1947	Quarter ended 31st Mar. 1948	Period ended 30th Sept. 1947	Quarter ended 31st Dec. 1947	Quarter ended 31st Mar. 1948
BRAINTREE	—	—	—	—	—	—	—	—	—	69	64	66
CHELMSFORD	10	—	—	—	—	—	—	—	—	1	1	—
DUNMOW	—	—	—	5	—	—	—	—	—	1	—	—
EPTING	3	—	—	2	—	—	—	—	—	70	—	—
HALSTEAD	—	—	—	—	—	—	—	—	—	10	—	—
LEXDEN AND WINSTREE	—	—	—	2	2	2	—	—	—	—	—	—
MALDON	1	—	—	1	—	—	—	—	—	—	—	—
ONGAR	—	—	—	—	—	—	—	—	—	—	—	—
ROCHFORD	—	—	—	—	—	—	—	—	—	—	58	53
SAFFRON WALDEN ..	2	—	—	1	—	—	—	—	—	—	—	—
TENDRING	—	—	—	—	—	—	—	—	—	43	25	—

DR—De-requisitioned.

RURAL HOUSING SURVEY PROGRESS REPORT

Rural District Council	Satisfactory in all respects			With minor defects only			Requiring repair, structural alteration or improvement			Appropriate for reconditioning			Totally unfit			Number of Properties	
	Total survey to 30th Sept., 1947	Surveyed during quarter ended		Total survey to 30th Sept. 1947	Surveyed during quarter ended		Total survey to 30th Sept. 1947	Surveyed during quarter ended		Total survey to 30th Sept. 1947	Surveyed during quarter ended		Total survey to 30th Sept. 1947	Surveyed during quarter ended		surveyed to date	to be surveyed
		31st Dec. 1947	31st Mar. 1948		31st Dec. 1947	31st Mar. 1948		31st Dec. 1947	31st Mar. 1948		31st Dec. 1947	31st Mar. 1948		31st Dec. 1947	31st Mar. 1948		
BRAINTREE					SURVEY COMPLETED												
CHELMSFORD					SURVEY COMPLETED												
DUNMOW	275	—	1	128	—	4	248	—	10	22	5	6	265	7	13	984	3,021
ERPINO	445	4	1	466	18	15	621	84	134	172	74	61	137	53	6	2,294	544
HALESTEAD	66	—	—	215	—	—	215	—	—	—	—	—	17	25	—	—	—
LEXDEN AND WINSTREE	727	41	46	1,976	92	65	892	41	67	219	10	5	387	5	8	4,581	219
MALDON	—	—	—	*1,122	*391	*255	564	305	138	335	122	51	308	111	36	4,095	405
ONGAR					SURVEY COMPLETED												
ROCHFORD					SURVEY COMPLETED												
†SAFFRON WALDEN ..	250	21	18	2,131	337	127	539	35	20	16	16	3	327	22	—	3,929	571
TENDRING	111	173	282	461	365	622	166	73	28	78	17	14	452	13	6	2,861	4,378

*Fit or with minor defects only.

†Plus 17 "Quebles" surveyed.

PARTICULARS AS TO STAFFS OF RURAL DISTRICT COUNCILS AVAILABLE FOR SURVEY.

<i>Rural District Council</i>	<i>Number of Staff available for Survey</i>							
	<i>Full peace-time</i>			<i>Present time</i>			<i>Additional Staff required to carry out Survey</i>	
	<i>Sanitary Inspectors</i>	<i>Survey Assistants</i>	<i>Clerical Assistants</i>	<i>Sanitary Inspectors</i>	<i>Survey Assistants</i>	<i>Clerical Assistants</i>	<i>Sanitary Inspectors</i>	<i>Survey Assistants</i>
Braintree			SURVEY	COMPLETED				
Chelmsford			SURVEY	COMPLETED				
Dunmow	2	2	2	2	2	2	—	—
Epping	—	—	—	—	1	1	—	—
Halstead	1	—	1	—	—	—	1	1
Lexden and Winstree	2	—	1	—	—	1	—	—
Maldon	2	—	1	1	1	1	—	—
Ongar			SURVEY	COMPLETED				
Rochford			SURVEY	COMPLETED				
Saffron Walden	1	—	—	2	1	1	—	—
Tendring	3	—	2	2 part-time	—	—	—	1

on the building of new houses, the Committee resolved that the Minister informed that his decision not to take any immediate steps to implement the recommendations contained in the Fourth Report was deprecated and asked that the matter be reconsidered.

CONSTITUTION OF COMMITTEE. The Constitution of the Joint Committee has been amended so as to enable each Rural District Council to appoint two Members, in lieu of one Member and a Deputy, and the County Council to appoint ten Members, in lieu of five Members and an equal number of Deputies.

HOUSING FOR AGRICULTURAL WORKERS. Following the survey which was carried out by the Essex Agricultural Executive Committee, at the request of the Minister of Agriculture and Fisheries, to ascertain the number of houses required in the Administrative County to house agricultural workers, in order that the extended food production programme might be implemented, invitations were extended to the Principal Housing Officer, Ministry of Health, Cambridge, and the Executive Officer, Essex Agricultural Executive Committee, to attend the Meeting of the Committee held on the 1st January, 1948. The Principal Housing Officer and the Labour Officer of the Essex Agricultural Executive Committee duly attended, and the problem of meeting the demands of the Agricultural Committee for the provision of approximately 5,000 agricultural dwelling houses in rural areas was fully discussed. Arising out of the discussion it was decided to inform the Minister of Health that in the opinion of the Committee, unless immediate steps were taken to provide housing accommodation for agricultural workers required to replace temporary Prisoners of War Labour, the implementation of the extended food production programme might be seriously prejudiced, and to request the Minister to take certain action to meet as far as possible the needs of agriculture.

Quarterly reports were again furnished by the Rural District Councils showing provision of permanent and temporary housing accommodation, permanent housing, temporary housing, private enterprise, requisitioned properties, progress report on survey and particulars of staff. These are given on pages 30 to 37.

In Appendix B on page 36, it will be seen that in four Rural Districts the survey was completed and that good progress had been made in most of the remaining seven Rural Districts where staffing and other difficulties had caused delay.

FOOD AND DRUGS ACT, 1938.

I am indebted to the County Analyst for the following information in regard to the work undertaken by him during the year 1947 :—

Samples analysed	..	..	..	..	1,561
Samples unsatisfactory	..	..	..	..	112

The Chief Inspector of Weights and Measures has kindly supplied the following summary in regard to the work undertaken during the year in his Department.

The enforcement of the Food and Drugs Act, 1938, aims at the maintenance of pure and wholesome foodstuffs. The definition of "food" is considerably wider than generally appreciated in that it covers "any article used as food or drink for human consumption, other than drugs or water."

Despite the cessation of hostilities, foodstuffs have continued, throughout the year, to be in short supply and a high standard of vigilance was essential.

Through the machinery of the Weights and Measures Department, 1,557 samples of various foods and drugs were procured and submitted to the Public Analyst for analysis. In addition 1,368 samples of milk were tested in the Laboratory of the Weights and Measures Department in Chelmsford. Sixty-five of the samples of milk submitted to the Public Analyst failed to reach the prescribed standard; 21 contained added water in proportions varying from 1 to 27 per cent., 43 were deficient in milk fat in extents ranging from 1 to 40 per cent. and one was adulterated with added water and also was deficient in milk fat.

Of the remaining samples submitted to the Public Analyst 47 were unsatisfactory. These unsatisfactory samples included the following :—

BREAD ROLL. This was found to contain the foetus of a rat or mouse and was therefore unfit for human consumption.

DRIED HERBS. Three samples were found to contain excessive amounts of sand thus indicating carelessness in collection and preparation.

PEPPER. One sample described as "Pure White Pepper" was found to consist of a wheat flour preparation, spiced and flavoured to simulate pepper.

ICE CREAM. Twenty-five samples of ice cream procured showed that considerable variation existed in the quality of this product as sold to the public. As an indication of this, it is interesting to note that the fat content of samples ranged from 0.1 per cent. to 10.2 per cent.

VINEGAR. Four samples were found to be deficient in acetic acid in extents varying from 12 to 52 per cent.

VITAMIN TABLETS. This sample contained no Vitamin A although it was claimed that this vitamin was present.

PROSECUTIONS. Prosecutions were undertaken in 32 cases during the year. Ten cases were taken against a partnership in respect of milk which contained added water. Fines and costs totalling £132 14s. Od. were imposed. A licensee was summoned in respect of gin which contained added water. The total of £25 fines and costs were imposed upon him by the Bench. The majority of the remaining cases were instituted in respect of milk which was below the prescribed standards.

MENTAL DEFICIENCY.

As in previous years the services of Dr. A. R. Forbes, Assistant County Medical Officer, have been available in connection with the arrangements under the Mental Deficiency Acts, 1913-27, for the work of examining, and making reports on, persons suspected of being mentally defective for consideration by the statutory Committee

for the Care of the Mentally Defective. The services of Dr. Forbes were also available for examining and reporting on cases for the Courts of Justice. Dr. W. H. Alderton, Assistant County Medical Officer, also continued to assist.

A total of 82 cases (36 less than in 1946), were examined and classified as follows :—

Diagnosis.	Number Examined.			Total
	Male.	Female.		
Feeble minded	20	27		47
Imbecile	9	12		21
Idiot	2	1		3
Not certifiable under the Acts ..	6	5		11
Total	37	45		82

At the end of 1947, the Statutory Committee were responsible for the care and control or supervision of 3,132 persons, classified under the following headings (the figures in brackets relate to the year 1946) :—

	Male.		Female.		Total.	
In Institutions (excluding cases on licence) ..	517	(484)	367	(368)	884	(852)
In places of safety (Section 15) ..	37	(92)	48	(87)	85	(179)
Under Statutory Supervision ..	1,043	(1,002)	841	(795)	1,884	(1,797)
Under Guardianship (including cases on licence)	20	(18)	27	(25)	47	(43)
On licence from Institutions ..	99	(85)	133	(118)	232	(203)
Totals ..	1,716	(1,681)	1,416	(1,393)	3,132	(3,074)

MENTAL TREATMENT.

Psychiatric Out-Patient Clinics established under the Mental Treatment Act, 1930, have been held during the year at the Oldchurch County Hospital, Romford, at St. Andrew's Hospital, Billericay, and at the Combined Treatment Centre, Woodford, under the auspices of Dr. G. S. Nightingale, Medical Superintendent of the Brentwood Mental Hospital and at the Essex County Hospital, Colchester, the Chelmsford and Essex Hospital, the Clacton Combined Treatment Centre and the Braintree Combined Treatment Centre under Dr. A. G. Duncan, Medical Superintendent, Severalls Mental Hospital.

Dr. G. S. Nightingale, reports as follows :—

“ The regular Out-Patient Clinics at Oldchurch Hospital, Romford, were continued during the year 1947, to the extent of eight Doctor Sessions per week. 610 new cases were seen during the year of whom 48 were in-patients in the General Wards of Oldchurch Hospital. In addition, there were 1,070 attendances, making a total of 1,680.

Owing to travelling difficulties and pressure of work at Oldchurch Hospital, the Out-Patient Clinic held before the war at the Combined Treatment Centre at Woodford was re-opened in February, 1947, but unfortunately it was

possible to have the use of the premises more frequently than once a fortnight when two Doctors attend. During the $10\frac{1}{2}$ months from its re-opening, 67 new and 49 old patients were seen, making a total of 116. Useful though this Clinic has been, the fact that it is not held at a hospital imposes certain restrictions on the work that can be done and it is hoped that before long it may be possible for this clinic to be moved into a General Hospital.

In April, 1947, it was decided that it would be advantageous to start an Out-Patient Treatment Centre where electric convulsant therapy could be given and with your assistance and that of the Committee and the staff of St. Andrew's Hospital, Billericay, successful arrangements were made for this treatment to be carried out in the Out-Patient Department of St. Andrew's Hospital. Despite the relative inaccessibility of Billericay from the area from which most of our patients come, its value has been proved by the number of attendances. From its opening on the 10th April, 1947, until the end of the year 50 new cases were undertaken—a total of 319 attendances on two days per week.

I would like to take this opportunity of expressing my thanks for the invaluable help and co-operation which has been afforded us both at Oldchurch and at St. Andrew's Hospitals."

Dr. A. G. Duncan writes :—

" The Psychiatric Clinics at Colchester and Chelmsford continued throughout the year 1947, the former requiring two Psychiatrists at each session. In October a new Psychiatric Clinic was opened at Clacton-on-Sea with a weekly session and in November a further Clinic was opened at Braintree with a session on the first, third and fifth Thursdays in each month.

The figures showing the new cases and total attendances are as follows :—

				New Cases.		Total Attendances.
Colchester	..	..	..	181	..	815
Chelmsford..	..	..	..	36	..	94
Clacton ..	..	..	..	4	..	45
Braintree ..	..	..	..	2	..	9
				<hr/>		<hr/>
				223	..	963
				<hr/>		<hr/>

BLIND PERSONS.

The services of Mr. T. Collyer Summers, F.R.C.S., continued to be available throughout the year 1947 as Consultant Ophthalmologist supervising the facilities provided for the certification and medical and general care of the blind in connection with the County Council's arrangements under the Blind Persons Acts, 1920–1938. Dr. A. H. Staples, M.R.C.S., L.R.C.P., D.O.M.S., continued to act in a full-time capacity as Medical Officer for ophthalmic work up to the 31st October, 1947, when he resigned ;

his services continued to be available in a part-time capacity. In addition, the services of the following ophthalmic specialists were available in a similar capacity :—

Miss L. H. Macfarlane, M.D., D.P.H., D.O.M.S.

G. T. Foster-Smith, M.B., B.S.

J. E. L. Bendor-Samuel, M.B., B.S., M.R.C.S., L.R.C.P., D.O.M.S.

J. Graham White, M.D.

W. Glasse Watson, M.B., D.O.M.S. (died September, 1947).

G. Wright, M.R.C.S., L.R.C.P., D.O.M.S. (from September, 1947).

The specialists examined 249 persons in connection with the Acts. On 31st March, 1948, a total of 2,292 persons (males 1,048, females 1,244), was on the register. This figure included 185 persons who had been registered as blind in the preceding 12 months. The following table shows the ages at which their blindness occurred :—

Age Period	0-1	1-5	5-10	10-20	20-30	30-40	40-50	50-60	60-70	70 and over	All ages.
Males	2	1	1	4	10	2	15	15	17	22	89
Females	0	1	1	4	4	3	3	11	17	52	96
Total	2	2	2	8	14	5	18	26	34	74	185

There has been a satisfactory decrease in recent years in the number of cases registered who became blind in the first year of life. This decrease is shown by the figures appearing in the following table :—

Three years ending 31st March.	No. of cases registered.	Rate per 1,000 live births.
1939	15	0.25
1942	18	0.31
1945	15	0.22
1948	7	0.08

The reports of the Ophthalmologists in respect to patients certified as blind during the year 1947 were examined with a view to determining the principal causes of blindness at different ages. The unit used was not a person but an eye, since blindness may occur in the two eyes at different times and for different reasons. The analysis which is given here deals with 114 reports (228 eyes). If the age at which blindness occurred was not stated it was assumed to have occurred at the time of examination, but owing to a complete lack of information the age at onset of blindness could not be inferred at all in the case of three eyes. There remain 225. In 97 (43 per cent. of the total eyes) blindness occurred over the age of 70—indicating the great part which old age plays in causing blindness. Interest was mostly centred on “premature” blindness and this was arbitrarily considered as blindness under the age of 60. The table below has thus been divided into ages under 60 and over 60, and a column has been added giving the figures for ages under 60 in 1946 :—

				1947.		1946.	
				Under 60.	Over 60	Under 60	
<i>A. Congenital and Undetermined.</i>							
1.	Congenital, hereditary and developmental	..	..	12	0	..	5
2.	Myopic Error	..	..	18	9	..	10
3.	Glaucoma, primary	..	..	11	36	..	11
4.	Cataract, primary	..	..	4	54	..	6
5.	Other primary ocular defects			12	12	..	5
6.	Other	..	..	3	0	..	0
<i>B. Infectious and Bacterial.</i>							
1.	Congenital Syphilis	..	..	4	0	..	12
2.	Local infection of the coats of the eye			4	5	..	6
3.	Chronic Septicaemia	..	..	6	1	..	8
4.	Other	..	..	5	2	..	1
<i>C. Traumatic and Chemical</i>		..	..	6	1	..	10
<i>D. General Diseases</i>		..	..	7	8	..	3
<i>E. Not known</i>		..	..	3	2	..	1
				—	—	—	—
				95	130	..	78
				—	—	—	—

At ages over 60, Glaucoma, Cataract and other primary ocular defects accounted for 78 per cent. of the cases of blindness; general diseases accounted for eight cases, and in seven other cases they were mentioned as subsidiary, the most common diseases being arterio-sclerosis and diabetes.

Adding together the 1946 and 1947 figures for ages under 60, four of the listed causes in Group A still head the list, though in a different order from that which appears at more advanced ages. They are :—

A.	Myopic Error	..	..	..	..	..	28
	Primary Glaucoma	..	..	..	..	..	22
	Congenital, hereditary and developmental causes	..	..	..	..	..	17
	Other primary ocular defects	..	..	..	..	..	17

The following table shows the number of times that the conditions listed in Groups B, C and D were given as the principle or as a contributory cause of blindness :—

B.	Ophthalmia Neonatorum	..	..	..	..	..	2
	Congenital Syphilis	..	..	..	..	..	16
	Local infection of the coats of the eye				..	..	12
	Measles	..	..	..	..	..	1
	Meningitis	..	..	..	..	..	1
	Chronic Septicaemia	..	..	..	..	..	14

C.	Trauma	(1)	Industrial	..	..	..	..	2
		(2)	Non-Industrial	..	..	..	..	10
		(3)	War	..	..	..	..	4
	Indirect, sympathetic ophthalmic			..	..	..	..	1
D.	Vascular diseases	..	..	..	..	..	..	1
	Diseases of the Central Nervous System				..	..	..	5
	Diabetes	..	..	..	..	..	..	2

It is to be noted that the only specific fever mentioned was measles, that meningitis was mentioned once and ophthalmia neonatorum twice. It is to be noted also that Group C above does not give the true incidence of blindness in one eye due to accidents, since only accidents involving both eyes or those in which the second eye goes blind in later life are given.

PART II.

HOSPITAL SERVICES.

General.

During 1947 the hospital service in connection with the Emergency Medical Services virtually came to an end as such ; the demand for accommodation for patients coming within this category having become almost negligible. During the latter years of the 1939-45 war considerable difficulty had been experienced in finding accommodation for chronic sick patients, a difficulty which was mainly due to the shortage of nursing and domestic staff. Although the position as regards beds for the chronic sick deteriorated during 1947, it was found that the number of student nurses coming forward for training showed a slight increase with consequent beneficial effect as far as the acute patient was concerned.

Co-ordination of Hospital Services.

An important step forward in regard to the integration of the hospital services in the geographical county of Essex had been taken by the setting up in 1945 of a small planning committee of the Essex Hospitals Joint Advisory Council. This committee undertook to bring up to date the findings in the Report of the Surveyors of the Hospital Services in London and the Surrounding Areas, and produced its report in 1947 which made recommendations for the future development of the service.

Improvement of Hospital Accommodation.

It was not found possible to embark on any major schemes of improvements to hospitals, but many minor improvements and adaptations were carried out. Many of these interim improvements referred to accommodation and amenities for nursing and domestic staffs, as it was realised that every possible inducement had to be offered to prospective nurses and domestics if the service was not to suffer.

Catering Arrangements in Hospital.

Considerable attention had been focussed on hospital catering arrangements by the publication in 1946 of the Second Memorandum on Hospital Diet by the King Edward Hospital Fund for London. One of the recommendations of this memorandum was that suitably qualified dieticians should be in charge of the catering arrangements in hospitals. The County Council therefore, realising that good feeding is a very important part of hospital organization, appointed Miss Joan Ingram, B.Sc., holding the London University's Diploma in Dietetics, to undertake this duty. Miss Ingram took up duty on 1st September, 1947, and carried out a survey of the arrangements for the feeding of patients and staff in a number of the Council's Hospitals. Various improvements resulted from this.

Essex County Council Hospital, Black Notley.

Dr. M. C. Wilkinson, the Medical Superintendent, writes as follows in his annual report regarding the Emergency Medical Services Section of this hospital :—

“During the year 1947 the work of the hospital proceeded satisfactorily. Approximately 50 beds were kept open in the hutted portion of the hospital for general surgical and general medical cases.

The number of patients who completed their treatment during 1947 was 603. The number of operations performed was 350, the surgical work being carried out by the visiting staff consisting of Mr. H. Osmond Clarke, C.B.E., F.R.C.S., Mr. J. Crawford Adams, F.R.C.S., Mr. B. Whitchurch-Howell, F.R.C.S., Mr. Ronald Reid, F.R.C.S., Mr. H. A. H. Harris, F.R.C.S., and Dr. Kurt Jacobi, and Mr. Dennis Dunn, F.R.C.S. (Ed.), of the resident surgical staff.

The number of patients from the hospital in respect to whom X-ray examinations were undertaken in the radiography department was 1,933, and the laboratory examinations numbered 8,716.”

St. John's Hospital, Chelmsford.

An important development took place at this hospital during the year 1947. The hospital was recognized as a training school for midwives. The maternity unit at this hospital is on very modern lines, and a number of improvements was initiated to make this unit one of the most up-to-date in the County.

St. George's Hospital, Hornchurch.

Preliminary steps were taken during the year to bring St. George's Hospital, Hornchurch (formerly the Suttons Institution) into suitable condition for the reception of chronic sick patients, and by the end of the year considerable progress had been made with the plans for renovating and reconditioning the building to make it suitable for hospital purposes.

Statistics.

Preliminary investigations were commenced in regard to hospital statistics, and mention was made in the Report for 1946 of the findings resulting from the valuable statistical data which were collected in respect of the chronic sick at the Orsett Lodge Hospital where considerable research was carried out in connection with geriatric problems. Early in the year 1948, a complete survey was made of all patients over 60 years of age who were admitted to Orsett Lodge Hospital during the year 1947, with results which confirmed those of the earlier investigations. The bed-fast rate after six months was found to be 3 per cent. of the number of admissions, a result rather better than that found in the previous investigation.

Poliomyelitis.

The severe outbreak of poliomyelitis during the year (see page 6), caused considerable anxiety owing to the depletion of nursing staffs. When it was seen that the problem might throw a serious strain on the hospital resources, arrangements were immediately made to establish orthopaedic units for treatment at the Black Notley Emergency Hospital and at the Oldchurch County Hospital, Romford. Cases were for the most part admitted during the infectious stage to Rush Green, Waltham Abbey, and Thurrock I.D. Hospitals, and were transferred as soon as expedient to the orthopaedic units mentioned for subsequent treatment and physiotherapy.

Appointment of Plastic Surgeon.

With a view to remedying the lack of facilities for plastic surgery in the County, preliminary steps were taken to establish a plastic surgery unit and associated photographic unit at the Oldchurch County Hospital, Romford.

Post-Graduate Training of Medical Officers.

The County Council continued to co-operate in the scheme for providing post-graduate education for medical officers released from H.M. Forces. The doctors concerned were placed mainly at Oldchurch Hospital and Black Notley Hospital.

Roffey Park Rehabilitation Centre.

Continued use was made of the facilities at the Rehabilitation Centre, Roffey Park, Horsham, Sussex, under the arrangements approved in 1944, the number of patients sent for treatment under the auspices of the County Council during the year being 28.

Haymeads Hospital, Bishops Stortford.

Thirty-three beds continued to be available to the Public Health and Social Welfare Committees at this hospital during the year for patients living near the Essex-Herts border, and this number was kept fully occupied.

Preparation for Transfer of Hospitals to the Ministry of Health.

In spite of the fact that hospitals were to be transferred in 1948 to the Minister of Health, many schemes of improvement to the hospitals were initiated and planned, in order that the hospitals and institutions should be transferred in as satisfactory a condition as possible.

Arrangements were made for an exhaustive inventory of hospital equipment to be made, and this had practically been completed by the end of the year.

AMBULANCE SERVICES.

In many respects the work of the Ambulance Services throughout the County was similar to that carried out in the previous year with the exception that the deterioration of vehicles continued at a greater pace than the arrival of replacements.

In spite of the fact that County District Councils were now becoming resigned to the fact that their ambulance services would pass over on the appointed day to the control of the County Council, it is to the credit of some of these authorities that provision was made for the future by the ordering, with the approval of the County Council and the Ministry of Health, of new vehicles. The work of the service in some districts showed an increase on previous years, due no doubt to the fact that, in some instances County District Council's had embarked upon a free ambulance service within certain defined limits.

The Reciprocal Ambulance Scheme sponsored by the County Council continued to function smoothly and the County Council itself made increasing use of ambulances owned by Local Authorities for the conveyance of patients for whom the County Council was responsible.

During the period under review the County Council made even greater use of the ambulances operated by the Home Ambulance Department of St. John Ambulance Brigade and British Red Cross Society than had been the case in previous years, and the Hospital Car Service continued to render great assistance in the transport of patients receiving treatment under the various schemes sponsored by the County Council. During the year the privately owned cars operated by this service, in addition to the work performed by them on behalf of hospitals and District Councils, travelled 21,690 miles while conveying County Council patients.

The County Council continued to operate the E.M.S. Ambulance Service on behalf of the Ministry of Health and during the year the vehicles attached to this service travelled 18,991 miles on E.M.S. duties. In addition this service covered 28,886 miles in conveying County Council patients. The usefulness of sitting case cars for the conveyance of the less serious cases was again made evident and proved that the provision of a number of such vehicles in any County scheme should be considered seriously.

NURSING SERVICES.

At the beginning of the year 1947, there were over 350 vacancies for nurses of all categories in the County Council's Public Health Hospitals and Sanatoria, and as a consequence of this and the shortage of domestic staff there were over 1,000 unstaffed beds in those Hospitals and Sanatoria which could not be used. To deal with this problem the Public Health and Housing Committee set up at the end of 1946 a Sub-Committee called the Recruitment of Nurses Sub-Committee, to consider all aspects of the problems relating to the recruitment of nurses. This Sub-Committee were fortunate in having Miss J. F. Clutterbuck, a former Nursing Officer of the Ministry of Labour and National Service, to advise them in their activities. She had carried out an enquiry in relation to nursing staffs of Hospitals and Sanatoria under the control of the Public Health and Housing and Social Welfare Committees and the Committee of Visitors to Mental Hospitals in the latter part of 1946, and was appointed to a part-time post on the staff of the Public Health Department on 5th May, 1947.

Employment of Part-time Nurses and Midwives.

Full support was given to a campaign which was launched by the Ministries of Health and Labour and National Service in the national press and by radio on 15th February, 1947, primarily to cover the area administered by the London County Council. The anticipation of some result from this campaign was justified in the event; it produced part-time nurses for work both at the Essex County Council Hospital, Wanstead, where in consequence it was possible to open up additional beds and to bring the maternity unit into use at full capacity for the first time, and at the Oldchurch County Hospital, Romford.

This encouraged consideration being given to the inauguration of a similar campaign to cover by definite stages the whole of the County of Essex, including, if so desired by the Authorities of those Hospitals, Voluntary and other Hospitals not under the control of the County Council. Such a scheme was therefore inaugurated covering the north eastern portion of the County and centred on Colchester, and at the end of the year 1947, arrangements were in hand for the launching of campaigns in the Chelmsford, Epping and Grays areas of the County.

Report of the Working Party on the Recruitment and Training of Nurses.

Consideration was given to the Report of the Working Party on the Recruitment and Training of Nurses, but action thereon was deferred pending the issue of the Minority Report which had not been received before the year ended.

Nursing Agencies.

The licences relating to the Nursing Agencies referred to in the report for 1946 were renewed. Inspections carried out during the year by senior nursing officers on the staff of the Central Office indicated that the Agencies were conducted in a satisfactory manner.

PART III.

TUBERCULOSIS.

The County Council's comprehensive diagnostic and treatment scheme in connection with tuberculosis continued to function during the year 1947, further effort being made as opportunity offered and to the extent that post-war conditions allowed to improve the facilities available.

Notification.

The following is a summary of the formal notifications of new cases of tuberculosis which were received in the Department during the year. The total of 1,875 is 109 less than the total for 1946 :—

	FORMAL NOTIFICATIONS												Total Notifi- cations
	Primary Notifications of New Cases of Tuberculosis												
	Age Periods												
	0—	1—	5—	10—	15—	20—	25—	35—	45—	55—	65—	Total (all ages)	
Pulmonary, Males ..	4	17	26	18	78	110	217	148	128	93	29	868	952
„ Females ..	—	9	13	12	99	116	156	87	35	30	14	585	622
Non-Pulmonary, Males	5	21	29	13	13	16	19	11	5	6	3	141	147
„ Females	—	19	32	22	15	13	25	9	8	3	4	152	154

In addition, 370 new cases came to the knowledge of Medical Officers of Health during the year otherwise than by formal notification—an increase of 88 such cases over the figure for the previous year. The age period distribution of these cases is given in the following table :—

	Age Periods											Total
	0—	1—	5—	10—	15—	20—	25—	35—	45—	55—	65—	
Pulmonary, Males ..	—	3	9	1	16	35	47	31	12	10	4	168
„ Females	—	4	6	5	17	33	56	17	11	4	2	155
Non-Pulmonary, Males ..	—	4	4	4	3	1	2	1	—	—	—	19
„ Females	1	3	4	2	7	3	6	—	1	1	—	28

There was therefore a net decrease of 21 new cases which came to notice in the year under review, the total being 2,245 as against 2,266 in 1946.

It is of interest to record the sources from which information was obtained in those new cases which came to notice otherwise than by formal notification, and details are given below :—

Source of Information.								No. of Cases.	
								Pulmonary	Non-Pulmonary
Death Returns	from local Registrars .. .. .	..	..	..	..	..	..	7	2
	} transferable deaths from Registrar-General	..	..	..	..	..	..	—	—
Posthumous Notifications	.. .. .	..	..	..	..	..	..	15	4
Transfers " from other areas (other than transferable deaths)	.. .. .	..	..	..	..	..	..	236	25
Other sources (Forms I and II)	.. .. .	..	..	..	..	..	..	65	16
Total	.. .. .	..	..	..	..	..	..	323	47

On 31st December, 1947, there were 14,949 cases of tuberculosis on the notification registers kept by Medical Officers of Health in the County. Of these notifications 10,845 were in respect of pulmonary infections (males 6,039; females 4,806), and 4,104 were non-pulmonary (males 2,094; females 2,010). The number of cases on the notification registers continued to increase; the total for 1947 being 596 more than that for 1946. This increase is not more than would be expected in view of the decrease of population.

Attack and Death Rates.

The following table shows the attack and death rates from tuberculosis in the Administrative County from 1912 to the year under review :—

YEAR	Pulmonary Tuberculosis				Non-Pulmonary Tuberculosis				Tuberculosis (All Forms)			
	Noti-fica-tions	Rate per 1,000 Pop.	Deaths	Rate per 1,000 Pop.	Noti-fica-tions	Rate per 1,000 Pop.	Deaths	Rate per 1,000 Pop.	Noti-fica-tions	Rate per 1,000 Pop.	Deaths	Rate per 1,000 Pop.
1912-16	Not available		851	0.86	Not available		269	0.27	Not available		1120	1.13
1917-21	available		752	0.89	available		199	0.24	available		951	1.13
1922-26	1110	1.16	656	0.69	320	0.34	148	0.15	1430	1.50	804	0.84
1927-31	1110	1.00	710	0.64	382	0.34	141	0.13	1492	1.34	851	0.77
1932-36	1145	0.89	644	0.50	391	0.30	131	0.10	1536	1.19	775	0.60
1937-41	1161	0.87	612	0.45	348	0.26	116	0.09	1509	1.13	728	0.54
1942	1387	1.09	622	0.49	431	0.34	126	0.10	1818	1.43	748	0.59
1943	1417	1.11	639	0.50	436	0.34	109	0.09	1853	1.45	748	0.59
1944	1335	1.06	593	0.47	364	0.29	113	0.09	1699	1.35	706	0.56
1945	1273	0.99	548	0.42	337	0.26	112	0.09	1610	1.25	660	0.51
1946	1454	1.00	511	0.35	297	0.21	78	0.05	1751	1.22	589	0.40
1947	1453	0.97	554	0.37	293	0.20	80	0.05	1746	1.17	634	0.43

The attack rate for cases of pulmonary tuberculosis declined to 0.97, but the death rate increased slightly to 0.37. For non-pulmonary tuberculosis, there has been a very slight improvement over last year's record figures. For both forms of the disease the absolute figures of notifications and deaths rose in the case of females and in the case of males. The increase in the number of female cases of pulmonary tuberculosis was in respect of adults only, each age group over 25 showing an increase. The increase in deaths was especially marked in the case of the group 15-45 in which there were 182 deaths from pulmonary tuberculosis and 21 from non-pulmonary

tuberculosis, compared with 130 and 11 in 1946. No reason for this sex difference has been discovered but one might hazard a guess that the severe winter may not have been unconnected with it.

Dispensaries.

A total of 42,497 attendances were made by patients at the Tuberculosis Dispensaries during the year and 22,363 X-ray examinations were undertaken. In addition the Tuberculosis Officers paid 1,127 visits to patients' homes. The Tuberculosis Visitors paid 19,257 home visits.

Some progress was made with the work of adapting the Dispensary at Colchester to provide an X-ray department with facilities for giving artificial pneumothorax refills but they had not been completed by the end of the year. A suitable X-ray plant was ordered early in the year.

During the year the Dispensary at Barking was transferred from premises at Linton Road, Barking (which, owing to the limited accommodation available, had become unsatisfactory) to the Barking Isolation Hospital by arrangement with the Borough Council. Owing to the imminence of the transfer of the service to the North East Metropolitan Regional Hospital Board only a modified scheme of adaptation and furnishing was implemented, but the arrangement included the use of the hospital operating theatre and X-ray department.

Institutional Treatment.

As is indicated elsewhere in this Report there was to all intents and purposes no improvement in the staffing position at hospitals and sanatoria. This was reflected in the increase in the list of patients awaiting institutional treatment, a matter which had caused considerable anxiety over several years. The restrictions placed on admissions in previous years had to be continued, much to the disappointment of patients themselves and their relatives. To write an ever increasing number of letters to patients and others interested in their welfare explaining tactfully and with sympathy and understanding that there was no alternative to a prolonged waiting period, became a major and somewhat distressing occupation in the department.

Despite all the difficulties referred to above, it was possible to maintain an average of over 900 patients in institutions throughout the year but the waiting list which in 1946 averaged approximately 350, rose further to an average of 390.

Harold Court Sanatorium. Various small improvements calculated to improve the comfort of patients and to make the sanatorium more attractive to staff were effected at this sanatorium during the year. A proposal involving the establishment of a recreation room in accommodation used as a recreation room of an artificial pneumothorax treatment unit and the transfer of the recreation facilities to the room vacated by the unit was the subject of much consideration, but at the request of the Minister of Health was finally deferred for consideration by the North East Metropolitan Regional Hospital Board.

Black Notley Sanatorium. Owing to the inability to recruit sufficient nursing staff to meet the requirements of this sanatorium it was decided during the year

continue the use of 60 beds as they became vacant. In an endeavour to improve supply of nursing staff an arrangement was made with the Southend-on-Sea General Hospital for a scheme of affiliation for the training of student nurses at the hospitals, and at the end of the year 1947, the requisite application had been made to the General Nursing Council. Many proposals of a minor character affecting the well-being of patients (e.g. interior decoration of wards) and staff (e.g. additional provision for transport to neighbouring towns), were considered and implemented during the year.

In his annual report for the year 1947, Dr. M. C. Wilkinson, the Medical Superintendent, says :—

“During the year 1947, the work of the sanatorium was almost fully maintained.

The surgical tuberculosis clinics were continued at the Essex County Hospital, Wanstead, Oldchurch County Hospital, and the Hadleigh Clinic. The dispensary tuberculosis work was also undertaken by the sanatorium staff in the Braintree, Dunmow and Witham districts. A consultative clinic was also held once a fortnight for pulmonary tuberculosis at Black Notley.

There were 302 patients admitted for the treatment of pulmonary tuberculosis during the year 1947, and 301 patients discharged. Some 6,873 special treatments, consisting of A.P. and P.P. Inductions, A.P. and P.P. Refills, operations for Thoracoscopy and division of adhesions, operations for phrenic paralyses, aspirations for air replacements, out-patients A.P. and P.P. Refills, rib resections and Bronchoscopies were given by Dr. R. C. Cohen. Consultative clinics were also held at the sanatorium. There were 48 confinements in the maternity unit during 1947.

During the year 187 patients were admitted for the treatment of non-pulmonary tuberculosis and 184 discharged. Mr. S. L. Higgs, F.R.C.S., consulting surgeon for surgical tuberculosis, supervised and gave considerable encouragement in regard to this work. In 11 of the cases the observation produced a negative result, but the remainder were found to be suffering from skeletal, genito-urinary and abdominal tuberculosis, tuberculosis of cervical glands and primary thoracic infection of children. Operations were performed on 237 patients suffering from non-pulmonary tuberculosis.

In the splint department 359 surgical appliances were manufactured, 64 were altered and 124 alterations to surgical boots were carried out. The provision of bed splints for patients is also undertaken in this department, as is the work in connection with the surgical tuberculosis consultative clinics and some of the orthopædic clinics in the County.

The total number of patients in the sanatorium X-rayed in the radiography department was 2,927 and the number of examinations in respect to sanatorium patients undertaken in the laboratory amounted in total to 28,337.”

Essex County Council Hospital, Broomfield. The bed complement at this hospital declined at the reduced figure of 250 (as against a total of 300) throughout the year. A scheme was prepared for the ornamental lay-out of the grounds of the hospital, and the work of erecting a hostel for the accommodation of 15 male nurses was com-

menced. The Chairman of the County Council (Alderman P. Astins, J.P.), entertained a large and representative gathering at an official reception at the hospital on 26th June, 1947.

The arrangements for the reception of patients at the Colchester, Ilford, Thurrock and Waltham Abbey Isolation Hospitals continued throughout the year.

As was anticipated in last year's Report, very little progress was made with the scheme for adapting the Passmore Edwards Convalescent Home at Clacton-on-Sea for the reception of 30 female patients.

Financial Allowances.

The number of patients receiving allowances under the terms of Ministry of Health Memorandum T/266 again increased slightly from 634 in 1946 to 665 in the year under review.

Mass Miniature Radiography.

During the first three months of 1947, the Mass Miniature Radiography Unit operating in this County undertook an investigation at Brentwood Mental Hospital and details of this were included in my Annual Report for 1946.

In the nine months ending December 31st, 1947, the total number of miniatures taken was 21,822 compared to 16,453 in the corresponding period of 1946. The number of large films called for was 1,208, which was 5.5 per cent. of the total number of miniatures, a smaller percentage than in 1946. On the other hand the number of cases needing further investigation (674) amounted to 3.1 per cent. of the total number of miniatures, much the same percentage as in 1946. The percentage (1.7) referred to a Chest Clinic also remained substantially the same.

Nearly 12 per cent. of the films showed some abnormality. 836 of these were tuberculosis in origin but only 52 showed active tuberculous lesions. In all 370 were referred to Chest Clinics while the incidental value of mass miniature radiography toward the discovery of diseases other than tuberculosis is indicated by the fact that 18 patients were referred to Cardiac Clinics. In addition 16 were referred to the private doctor and 17 cases were further investigated at hospital.

The following statistics relate to the work done during the period 1st April 1947 to 31st December, 1947 :—

Total number of miniatures taken	..	..	..	..	21,822
<i>Analysis.</i>					
Normal Films	..	..	..	..	20,283
Classified other than Tuberculosis	..	..	..	..	624
Did not attend for repeat Miniature	..	..	..	..	19
Did not attend for large film	..	..	..	..	33
Did not attend investigation or Clinic	..	..	..	..	27
Inactive Tuberculous lesions	..	..	..	..	781
Active Tuberculous lesions	..	..	..	..	52
Pleural effusion (Tuberculous)	..	..	..	..	3
Total	..	..	..	..	21,822

Large films called for	1,208
Did not attend for large film	33
Investigations called for	674
Did not attend for investigation	11

Disposal of Cases Investigated.

Normal, and no further action necessary	242
Referred to Chest Clinics.. .. .	370
Referred to Cardiac Clinic	18
Referred to private doctor	16
Hospital investigation	17
Did not attend for investigation	11
<hr/>	
Total	674
<hr/>	

After-Care.

During the year ended 31st March, 1948, the ten voluntary Tuberculosis Care Associations expended a total sum of £6,214 in providing help of various kinds to necessitous families. They continued to receive financial assistance in the shape of the grant from the County Council which it made on the basis of 30/- per thousand of the population covered by their respective activities.

At the end of the year consideration was being given by local representatives to the formation of an After-Care Association to operate from Colchester and to be responsible for the north-eastern portion of the County.

The facilities for making grants of milk to patients whose circumstances are not only necessitous but who also come within special medical categories were continued. During the year 1947, 315 such grants were made.

Open Air Shelters.

Full use was made of the 51 open air shelters provided for the use of patients in the gardens of their homes during the year 1947.

TUBERCULOSIS IN YOUNG ADULTS FROM THE PUBLIC HEALTH ANGLE.

A Report to the Essex Epidemiological Committee

by

Professor Major Greenwood, F.R.S., and Mr. W. H. Leak.

Reasonably accurate rates of mortality from tuberculosis covering the experience of a century are now available for England and Wales, and their perusal justifies moderate optimism. Great as is the recorded decline, it may well be the real decline of mortality has been greater because of increasing accuracy of certification. For those who use vital statistics as instruments of propaganda, these figures are almost as happy a hunting ground as those of infant mortality—of which non-pulmonary tuberculosis was once a considerable factor. For instance, a reversion in 1939–45 to the rates of mortality from Tuberculosis in 1851–60, would have cost more lives than “total war.”

But Tuberculosis has not been “conquered” in the sense that Typhus has been conquered; nearly half the deaths of young women between the ages of 15 and 25 are due to Tuberculosis and more than a quarter of the deaths of young men (who suffer more than the young women from the peaceful violence of the internal combustion engine).

It is also true that, in both the wars of this generation, mortality from Tuberculosis increased significantly in both the statistical and conversational sense of that hard-worked adverb.

It is hardly necessary to say that since 1848 medical and lay opinion on the aetiology of Tuberculosis has changed. Our great grandparents’ attitude was more fatalist than ours. They emphasised more than we do the innate factors, the predisposition or diathesis (not, strictly speaking, synonyms) more, and what they called the procatactic and we call the environmental factors rather less. This does *not* mean that our predecessors were wholly fatalist.

“There is a very general prejudice respecting the transmission of a tendency to scrofula which is often the source of much unnecessary uneasiness; it is supposed by many to constitute a marked and decided character, incapable of being increased or diminished, and which must in all probability produce at some time or other the most melancholy effects in the individual and in his descendants. In fact, however, no man was ever born incapable of becoming scrofulous, and in this sense every man may be said to **possess** more or less of a scrofulous taint, which may become mischievous or fatal to all, under improper management, but which in other circumstances may easily remain latent throughout life.”

These are the words of the illustrious Thomas Young (Practical and Historical Treatise on Consumptive Diseases, 1815), and under “improper management” he would, like his predecessors, have included what we call a low standard of life. Not

of the old physicians doubted that poverty was a very important factor of Tuberculosis ; if they can be blamed—it is easy to criticise—it might be for a lack of curiosity regarding the way Tuberculosis spread within the families of the wealthy, for a tendency to stress diathesis, a neglect to consider seriously the possibility of infection which they all accepted in a theoretical way.

With the discovery of the bacillus of Tuberculosis medical and lay opinion moved sharply towards the other extreme ; diathesis was treated much as our predecessors treated infection ; infection replaced diathesis in general esteem and victory over Tuberculosis was generally expected. The pioneers of Biometry had ample grounds for criticism of the logic of those who, in a metaphor, which, 40 years ago, was used *ad nauseam*, exalted the seed and despised the soil. Karl Pearson frequently pointed out that the rate of mortality from Tuberculosis began to decline a generation before the bacillus was discovered, and indeed predicted an increase—statisticians, like novelists, are not always good prophets.

Nobody now doubts that the main factor of the declining rates of mortality was the rising standard of living. Indeed those who have most knowledge of, and have done most to bring into use, better methods of prophylaxis against infection and better treatment when the disease is established, have always said that a good standard of living is the best, but not an invulnerable, defence.

The object of this report is to examine the present position primarily from the standpoint of the public health statistician. Under the new Act,* we are passing into a new era of medical-statistical organization, and it is right to consider what we have already learned and how and where we have failed.

The secular trend of mortality from Tuberculosis has not been uniform ; the improvement has been greatest in the early years of life ; in the years of adolescence and early adult life, progress has been slower and interrupted by periods of stagnation, even deterioration.

In early childhood Tuberculosis is seldom of the pulmonary type, at adolescence predominantly of pulmonary type. This report is mainly concerned with the problem of Tuberculosis in young adults. It will be convenient to deal here briefly with childhood.

In the age group 0–5 years, the rate of mortality declined only 5.4 per cent. between 1851–60, and in the next decennium, rather less—by 4.4 per cent. In the two following decennia, the percentage declines were 14.1 per cent. and 12.6 per cent., and then in the first decennium of this century, the percentage rate of decline more than doubled—to 26.6 per cent., and, with a slight and significant exception, mortality continued to move down rapidly.

It is now generally agreed that a large proportion of non-pulmonary Tuberculosis is due to infection through milk by the bovine type of tubercle bacillus (more than 90 per cent. of glandular tuberculosis, the scrofula and struma of our ancestors, about one-third of tubercular meningitis and rather more of intestinal Tuberculosis are attributed to this type of infection).

*The National Health Service Act, 1946.—W.A.B.

It is reasonable to believe that the immense improvement of the last 47 years is due to cleaner food, above all the pasteurization of milks and, in some measure, to the reduction of tuberculosis in dairy cattle.

This hypothesis is confirmed by one of Nature's experiments. In both the German wars, the rate of mortality from Tuberculosis increased significantly in the adolescent and adult population, but, in the 1914-18 war, the rate on little children was unaffected. In the 1939-45 war, the number of deaths from Tubercular Meningitis exceeded in 1941 the average of 1938-9, by no less than 34 per cent. in males and 38 per cent. in females in England and Wales; in Scotland the increase was a little greater.

In the 1939-45 war thousands of children were sent from London and other air-vulnerable great towns into safe country districts where, for the most part, raw milk was used. There was, of course, no such migration in 1914-18. It would be interesting to trace the after histories of evacuated children in respect of Tuberculosis.

Returning to the Tuberculosis of adolescent and adult life, attention is directed to Table A on page 4. The secular statistics show that at the beginning of this century improvements at ages 15-30 was slowing down and became in 1914-18 an actual deterioration. After the war there was improvement, but in the age group 15-20, 1926-31, was a time of stagnation; improvement began again after 1931. Taking the several rates in 1912-14 as 100, the rates on males were 91 in 1922-24, 71 in 1932-34 and 42 in 1937. The index numbers for females were 105, 82 and 50. In the age group 20-25, we had 104, 77 and 44 for males, and 110, 95 and 73 for females.

In the late war, the deaths (not death rates) of young males 15-20, exceeded the average of 1938-9 by 11.6 per cent. and those of females by 10.5 per cent. At 20-25 there was no increase among males, but one of 16.6 per cent. in females in England and Wales. Later in the war the position improved. Table I gives a general view of the changes in decennia which, of course, do not correspond to the possibly vulnerable epochs of war and pandemic influenza. It seems reasonable to say that since 1932 the changes are satisfactory.

The statistical evaluation of results of modern treatments began in 1910 with the pioneer work of Elderton and Perry on sanatoria. The method they adopted was to compare the mortality experience of patients discharged from sanatoria with what would have been expected in persons of like age, sex and length of time under observation had the risks of dying been the same as those of the general population. This could not, as the investigators remarked, measure the experience from the time of first symptoms or even from the time of coming under observation. In actuarial language, it was a highly select experience. Persons whose symptoms cleared up, persons who died and persons too ill for sanatorium treatments were all excluded.

The statistical analyses showed that even patients admitted to treatment in a clinically and pathologically favourable state suffered much heavier mortality than the general population. In the first report only a small number of patients (241 from Midhurst), were available. In 1913, the same authors used much larger data, from an American sanatorium (Adirondack). Here again the ratios of observed to expected

MORTALITY RATES FROM TUBERCULOSIS PER MILLION LIVING IN EACH AGE GROUP.

	1911-1920				1921-1930				1931-1940			
	All Forms		Pulmonary		All Forms		Pulmonary		All Forms		Pulmonary	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
0-5	1,942	1,619	250	222	1,058	874	150	125	612	523	75	66
5-10	589 } 499 }	618 } 748 }	138 } 199 }	183 } 442 }	321	407	95	188	184	215	44	81
10-15												
15-20	1,068	1,416	796	1,143	834	1,238	637	1,044	588	900	436	759
20-25	1,558	1,526	1,354	1,343	1,387	1,467	1,211	1,322	1,007	1,210	879	1,099
25-35	1,840	1,484	1,680	1,344	1,401	1,228	1,276	1,121	983	927	892	849
35-45	2,204	1,401	2,060	1,295	1,635	940	1,531	855	1,134	645	1,057	587
45-55	2,335	1,156	2,189	1,036	1,725	734	1,624	655	1,390	485	1,317	433
55-65	2,135	943	1,978	815	1,452	624	1,349	531	1,296	426	1,222	371
65-75	1,390	750	1,239	613	957	498	851	401	807	355	735	293
75-	585	437	466	296	394	318	314	211	354	234	292	168

RATES OF PULMONARY TUBERCULOSIS 5-35 IN TERMS OF RATES IN 1911-1920.

	Males				Females			
	1911-20		1921-30		1911-20		1921-30	
	1911-20	1921-30	1911-20	1921-30	1911-20	1921-30	1911-20	1921-30
5-15	100	57	26		100	60	26	
15-20	100	80	55		100	91	66	
20-25	100	89	65		100	98	82	
25-35	100	82	54		100	83	63	

deaths were large, although the experience of more recent years was better than for earlier years. The authors, however, suggested that this might merely mean a change in the method of selection of patients for sanatorium treatment.

At this point a digression from statistical to medical history is permissible.

The fundamental idea of sanatorium treatment was not new in the early XXth century ; its advocates in the medical profession did not suppose it was. In the days of Pliny (H.N.bk.24., cap. 6), copious draughts of milk, mountain air, residence in pine forests, sea voyages were popular remedies. Good food, good air, and freedom from worry have been prescribed for more than 1,000 years. What *was* new, was the organized effort to bring these desirable conditions within the reach of the whole population, and to apply the treatment under the supervision of experienced physicians. The pioneers were never, we think, under any illusions as to the difficulties of their task. An experienced physician told one of us how hard it was to maintain a psychologically healthy atmosphere in a sanatorium. To compare temperatures and relate anecdotes of patients who had passed on are not good psychotherapy. In a sanatorium Dr. Diet and Dr. Quiet will be obeyed ; Dr. Merryman not so easily ; patients will worry about their futures, if selfish—about the futures of their dependents, if unselfish.

In 1919 the Medical Research Committee (now Council), published an analysis of the experience of King Edward VII Sanatorium at Midhurst, made by the late Dr. N. Bardswell and Mr. J. H. Thompson, F.I.A. This related to the experience of patients discharged from the Sanatorium in each of 8 years, 1907–14: 1,053 males and 654 females. The data was treated on the lines laid down by Elderton and Perry and the following extract from the preface fairly summarizes the conclusions reached :—

“ In general the mortality found among the Midhurst patients exceeds the amounts which vary from class to class the expectation of what it would have been in equivalent samples of the general population ; and this is taken to show that sanatorium treatment did not in fact restore the patients who formed the subject of the investigation to the average condition of health enjoyed by the general population. It would not, however, be just to depreciate the value of sanatorium treatment on this ground. The only statistical criterion of the absolute value of sanatorium treatment would be given by a comparison between the rates of mortality of sanatorium treatment and those of tuberculous persons who were similar in age, sex and economic position, but treated on other lines or untreated. No such comparison can yet be instituted, and the results of the present inquiry are not inconsistent with a belief in the utility of sanatorium treatment.”

In 1924, the Medical Research Council issued another report, on an inquiry into the after histories of patients treated at the Brompton Hospital Sanatorium (Frimley) during 1905–14 ; the authors were Sir Percival Horton-Smith Hartley, Dr. R. Wingfield and Mr. J. H. Thompson. This was, statistically, a much larger experience (2,393 males—1,007 females) ; the analytical results were much the same, except that Group 1 patients (incipient cases—slight or no constitutional symptoms ; slight or no elevation of temperature or acceleration of pulse during the 24 hours ; little or no

expectoration; tubercle bacilli "may or may not" be present; slight infiltration limited to the apex of one or both lungs or a small part of one lobe. No tuberculous complications), had a lighter mortality than the Midhurst patients at the same stage. At Midhurst the male patients had 6.4 times the expected deaths. At Frimley the ratios were 4.4 and 2.7. The differences are statistically significant. On the other hand the Frimley experience in advanced cases was worse than that of Midhurst—among women (not among men), 63 times the expected deaths against 38 times. The economic strata tapped by the sanatoria were different. The Midhurst patients were mainly from the professional, the Frimley patients from the hand-working classes. Now this explains the contrasts—if it *does* explain them—is anybody's guess.

These studies related in part to experience earlier than the first National Health Insurance Act, but in 1923, the Medical Research Council published a report by Dr. L. Vallow on the after histories of patients admitted to sanatorium benefit under the County Borough of Bradford's scheme in the years 1914–16. This was a smaller experience—342 men and 242 women—but did not give less favourable results than Midhurst. Indeed, rather better results in incipient cases. Taking the totals here, Midhurst had 90 deaths with 15.4 expected, Bradford 7 deaths and 7 expected. Using the X^2 test, it appeared that for males, Bradford had a significant advantage over Midhurst, but the results for females were not statistically distinguishable.

We now return to the point made in the above quotation. That the rates of mortality experienced by patients discharged from sanatoria; even of patients admitted in a favourable state, is higher, usually much higher, than that of the general population, is clear. Other statistical evidence could be cited, but would simply be repetition.

If, then, our *statistical* definition of cure is to reduce by the proposed treatment the average rate of mortality, over as many years as the follow-up system covers, to that of the general population, sanatorium treatment does *not* cure Tuberculosis. As the above quotation notes, this does not make even a *prima facie* case in favour of the view that sanatorium treatment is useless. What it does prove is that, in the non-natural, statistical sense of cure just propounded, sanatorium treatment does not cure consumption. The reader not passionately addicted to sums may doubt whether the man in the street would define "cure" in this way. Surgeons often use a much less exacting definition, sometimes survivorship for three, sometimes for five years, without recurrence after operation for cancer. Much statistical work has been done on survivorship after radical operation on cancer of the breast and the present discussion can be illustrated on the data. For convenience, we shall suppose that under each set of conditions, 1,000 women aged 50 came under observation. Actually the numbers varied, and, for a precise comparison, errors of sampling must be considered, but the index numbers here used are not seriously misleading. It was found that of 1,000 women operated on at the most favourable clinical stage, 761 were still alive at the end of six years. Had these women been subject to the general life table mortality, there would have been 921 survivors. Using the comparison of observed with expected deaths, 239 deaths were observed and 79 expected. At the end of ten years, 852 would normally have survived; 673 did. Now consider the situation of women with cancer of the breast not operated on. At the end of six years from first record of symptoms

or physical signs, 120 survived; the observed deaths were 880—more than ten times the number of expected deaths. At the end of ten years, fewer than 40 of the untreated survived. Evidently even in the most favourable clinical situation the patients *as a group* were not cured, but more than sixteen times as many survived ten years as in the untreated group—79 per cent. of the expected number. The *advantage* of the treatment is enormous. Can we claim this for the best treatment of Tuberculosis? A critic of the data for cancer would say that the controls are suspect. They are not, of course, random controls, i.e. we have not “operable” cases divided at random into two sets, one set of patients treated, the other let alone, but hospital patients coming under notice in various institutions over a long period, who, for many reasons, were unfit for treatment other than palliative. This will mean that in most, the disease had existed for a long time. But it would seem that, as we have lost not only all patients operated upon but those in whom the disease progressed rapidly to death, the residue left us gives a too favourable view of survivorship under natural conditions.

Alderton and Perry attempted to compare with sanatorium experience, data compiled by physicians, e.g. Pollock and Williams seventy to eighty years ago, but the results were inconclusive. There was, *inter alia*, the difficulty that the time during which the patients were under observation could not be precisely determined, so that the rate of mortality observed might be a serious under statement. We do not think the data of sufficient value to summarize here as modern methods of survey throw much more light on the natural history of Tuberculosis. More than forty years ago v. Pirquet introduced an intradermal test of allergy which, in Mantoux's improved form, has been applied to hundreds of thousands of persons. The technique of X-ray photography has been so far perfected that physical changes in the lungs can be detected by a trained eye much earlier in the natural history of the disease than was possible even 25 years ago, and Tuberculosis surveys have been many, especially in the United States of America. We shall examine with care the results of a survey in this country which were published a few months ago.

This survey was carried out by Drs. Daniels, Ridehalgh, Springett and Hall under the guidance of a committee appointed by the Royal College of Physicians of London. The original plan of the research, which was started in 1934, was to keep under observation for several years, groups of young people aged 15–25, engaged in different occupations which involved varying dangers of infection. All entrants to the survey were to be Mantoux tested and X-rayed, and these tests were to be re-applied at least annually. Five groups of the population were selected which are, in presumed decreasing order of exposure to risk of infection (1) Contacts, viz. persons attending tuberculosis dispensaries because a member of the family was suffering from clinical pulmonary Tuberculosis; (2) Nurses from A hospitals which freely admitted patients with chronic or advanced Tuberculosis, or from B hospitals which were more selective; (3) Medical students; (4) Naval training establishment entrants; and (5) Controls, largely office and shop workers. The original plan was to keep under observation 5,000 persons in each group. The war made this impossible, but of hospital nurses more than 4,000 were in fact observed, and the other groups, except perhaps (4) provided valuable data.

TABLE B.

TUBERCULOSIS INCIDENCE AFTER ENTRY TO SURVEY.

(Extracted from Table 69 of Daniels, Ridehalgh, Springett and Hall).

Group.			Total Examined			Cases, T.B.	Observation years.		Annual rate per 1,000 years.
FEMALES.									
Tuberculin Negative on Entry.									
*Group B Nurses	..	..	491	..	19	..	1003.25	..	18.9
*Group A Nurses	..	..	229	..	8	..	305.5	..	26.2
Irish and Welsh Nurses		..	250	..	21	..	417.25	..	50.3
Negative known to have become positive.									
*Group B Nurses	..	..	309	..	19	..	817.25	..	23.2
*Group A Nurses	..	..	127	..	8	..	279	..	28.7
Irish and Welsh Nurses		..	154	..	21	..	368	..	57.1
Positive on Entry.									
Controls	..	..	671	..	6	..	808	..	6.2
Medical Students	..	..	139	..	2	..	323.25	..	4.3
*Group B Nurses	..	..	2,201	..	28	..	4,023.75	..	7.0
*Group A Nurses	..	..	1,012	..	16	..	1,416.25	..	11.3
Irish and Welsh Nurses		..	687	..	20	..	1,142.5	..	17.5
Contacts	..	..	413	..	19	..	424.25	..	30.6
MALES.									
Tuberculin Negative on Entry.									
Medical Students	..	..	238	..	7	..	4,815	..	14.5
Positive on Entry.									
Controls	..	..	523	..	1	..	997	..	1.0
Medical Students	..	..	1,273	..	8	..	2,277.5	..	3.5
Contacts	..	..	376	..	12	..	365	..	32.9

*Excluding Irish and Welsh.

The following particulars indicate the general scope of the data.

The controls numbered 889 females and 728 males; 91.6 per cent. of the women and 71.8 per cent. of the men were clerks, typists, salesmen and shop assistants. Of the contacts, 533 women and 458 men, only 23.8 per cent. and 19.9 per cent. women belonged to this social-economic group, 39.4 per cent. of the women and 26.4 per cent. of the men were industrially employed; 25.3 per cent. of the men were labourers, meter collectors, gas-fitters, messengers or delivery boys. There were 296 female and 151 male medical students, of whom more than 90 per cent. had not had any previous gainful employment. Group A nurses numbered 1,882 and group B numbered 2,151; about a fifth of each group had been in a clerical or retail trade employment before and rather more than a fifth had had nursing experience before entry. In the "A"

hospitals more than one-third (36 per cent.) were Welsh or Irish ; in the " B " hospitals, only 9.26 per cent. The controls, nurses and medical students had a mean age at entry to the survey of 21 years, the contacts a mean age of rather less than 18.

Many of the results are, inevitably, confirmations of earlier surveys.

That the proportion of Mantoux positives in an urban community is greater than in a rural population and highest of all amongst them contacts of tuberculous persons, that the incidence of new infections or the lighting-up of quiescent foci is associated with Mantoux conversion, that those coming from overcrowded homes and poorly paid occupations have a higher incidence of active Tuberculosis than those better placed, are all conclusions reached before.

The striking difference between the experience of Welsh and Irish nurses and those of another race, viz. a racial distinction, is not new in the sense that racial differences have long been accepted, but is new inasmuch as the comparison is of different races under a common environment.

The most important part of the research is the tabulation of clinical observations on the natural history of the disease. In appraising this we are conscious of our own weakness. We are, we think, able to judge the significance, in a statistical sense, of recorded differences between group rates of incidence. As the authors were guided by Dr. Percy Stocks, we did not expect to find significance claimed without justification. Sometimes we applied other tests than those used by the authors but, in no instance, do we dissent from their statistical conclusions.

Whether the classification into clinical groups is generally acceptable is not a question for us but for those with wider clinical knowledge. It is, of course, a very important question from the public health standpoint.

To take an obvious example, there has been, perhaps still is, difference of opinion between skilled observers as to the relative importance of new infection and that of revival of activity in an old focus. To make the point clear by an impossible dichotomy, if all new cases among contacts were due to re-infection, the control or elimination of infective house mates is the one thing needful ; if all are due to revival then improving the standard of living is the one thing needful. The dichotomy is false for two reasons. The two remedies are not mutually exclusive and, we think, no pathologists excluded the method which they think of less importance. It remains, however, true that the emphasis upon the danger of infection on the one hand and upon what the public call building up the constitution on the other may vary. To enable those competent to judge to appreciate the classification of the authors, we give it in detail.

The classification was into clinically active pulmonary Tuberculosis ; latent sub-clinical pulmonary Tuberculosis ; pleurisy ; healed Tuberculosis.

The criteria of clinically active pulmonary Tuberculosis were :—

- (a) Bacteriological, viz. a demonstration of tubercle bacilli in the sputum.
- (b.1) A combination of radiological evidence with toxæmia.
- (b.2) The presence of rales persistent after coughing, heard in the subclavicular and upper clavicular regions with radiological signs of multiple small discrete pulmonary foci, each 2–5 mm. in size or oval or round homogeneous

opacities from 0.5 to 3 cm. in size fairly well defined, with a sharp edge or with a hazy edge merging into the surrounding tissue, or an ill-defined opacity comprising multiple discrete foci. (We omit more extensive signs, cavitation, etc.)

(b.3) Radiological evidence as before, with a history of recent haemoptysis.

(b.4) Radiological evidence with clinical evidence of pleurisy with or without effusion.

LATENT SUBCLINICAL PULMONARY TUBERCULOSIS. Here there may be no clinical evidence; the diagnosis may depend wholly on radiological evidence. A division is made into progressive and non-progressive. The former is based on the persistence and extension of radiological signs.

PLEURISY. In the absence of other known causes a straw-coloured pleural effusion free from pyogenic organisms and having a high lymphocytic count. In persons whose tuberculin reaction has recently changed from negative to positive a dry pleurisy may be regarded as probably of tuberculous origin.

HEALED TUBERCULOSIS is inferred from calcification of primary foci or of hilar glands. Lesions with appearances suggestive of healing are provisionally considered as healed if no changes or only later stages of regression are observed after three years and bacteriological investigation has led to negative findings.

Table B summarizes the results. The authors tested the significance (statistical), differences between groups by comparing rates per 1,000 person-years with the standard error computed from the usual formula but taking the numbers in samples, not as numbers of years but of persons. The distribution of deviations about the estimated mean must be asymmetrical. It appears, however, from a table in the report, that the annual morbidity rates after the first do not vary much one from another, so, having regard to the skewness, one might use a fourfold contingency table, reducing the number of cases assigned to the group with more years of observation to the standard of that with few observation years, because Fisher and Yates' tables for few distributions are available. We found, however, that the alternative method did not lead to any discrepancies of interpretation. Thus the difference of morbidity rates between controls and contacts is certainly significant and it is clear that when English nurses are compared with Irish and Welsh nurses, the latter have significantly higher morbidity.

Passing to the character of the changes and summarily contrasting nurses with contacts of 112 cases in nurses, 60 were clinically active or sub-clinical progressive. In 31 cases in contacts, 25 were clinically active or sub-clinical progressive. The usual X^2 test with correction for continuity gives a $P=0.01$. It seems that in both groups a large proportion of minimal lesions take an unfavourable course.

Reviewing their results, and those of predecessors, the authors write :—

“ Without doubt the results add weight to the repeated warnings of those who have observed such cases, that small lesions require very close watching. It is not suggested here that every case with a small tuberculous lesion should have active treatment. It can, however, be asserted that *nothing short of the closest expert supervision, with serial radiography, can be considered as adequate procedure.* The danger of arousing such fears in the patient as gravely to undermine his resistance to the lesion has been much over-stressed ; it is our experience that when in such cases the situation is explained clearly, avoiding alarm but avoiding also excessive reassurance, a reasonable attitude may be expected from the patient.”

The italics in this quotation are ours. It would mean in practice that a person caught in the radiological net with a minimal lesion should remain under expert supervision until it clears ; he becomes, in more than one sense, a marked man or woman. If the ideal of the Peckham scheme, of systematic complete health surveys of *all* citizens is realized, the recommendation is simply common sense ; but, insofar as it is selective so that not all but only a minority of the population are X-rayed at regular intervals and supervised by Tuberculosis Officers, we think the authors have under-estimated the psychological difficulties. Our authors' experience of the reactions of patients is wholly of volunteers and largely of nurses and medical students whose reactions to advice is likely to be what doctors would think reasonable. “ ‘ Go on,’ said the priest very gently. ‘ We are only trying to find the truth. What are you afraid of ? ’ ‘ I am afraid of finding it ’ said Flambeau.” As we have seen, carcinoma of the breast, if treated at an early stage, is, if not, in a group sense, cured, is certainly not a sentence of rapidly ensuing death. Yet surgeons see lamentably few patients at an early stage. Cancer is a fear-inspiring disease, but even now there is dread of a serious operation. Tuberculosis has not so grim a connotation as cancer, but its incidence is on the young and it does mean, or at any rate, is thought to mean, a segregation from the herd, the loss of a job, unfitness to live one's life as others do. There is another reason for not seeking the “ truth ” which does not apply to the psychological problem of cancer. Spontaneous arrests of malignant disease are rare ; they are relatively common in Tuberculosis. Here are two examples from the survey under notice :—

A Welsh nurse. Remarkable for the absence of symptoms in spite of the large cavitating lesion which appeared in the R. mid-zone two years after Mantoux conversion. All examinations at first were negative . . . the nurse remained at work ; two years after the appearance of the first lesion (i.e. four years after Mantoux conversion), she had pleurisy, and five months later still a new focus appeared on the opposite side, this time of the characteristic “ mottled opacity ” type. The most recent film seen revealed a small cavity in the centre of this lesion. She was still on duty, now a Sister.

E.W., a female contact, had in January, 1936, mottled opacities in both upper zones. She had no symptoms and was kept “ under observation ” (no X-ray), for a year, after which she refused to attend again until nearly seven years later. Meanwhile she had married in 1941 and had a baby. In October 1943, her husband was in hospital with advanced pulmonary Tuberculosis. She attended the clinic then, and X-ray showed some spread of the original lesions, and a cavity below the L. clavicle. She still had no symptoms and refused treatment.

We have now summarized, we hope adequately, this careful and important survey of a population which includes the type of patient coming under a Tuberculosis scheme. We have not spoken of the conclusions reached by the authors, or to be found in the literature, respecting the constitutional factor which once had so important a place in professional opinion. We abstain from a lengthy review, partly because we are not geneticists, partly because genetics are hardly within the control of the public health administrator in a country not under totalitarian government. As a matter of intellectual interest, however, a few sentences may be permitted. We believe that modern geneticists hold that the opinions of Darwinians of two generations ago, as so trenchantly expressed by Karl Pearson, are wholly obsolete, but this is not to say that a heritable, constitutional factor is of no importance, that, in the terms of the old antithesis, seed is everything and soil nothing. On the contrary, modern researches, both statistical and experimental, show that a constitutional factor is of great importance. The statistical method of inquiry has been this. Cases of Tuberculosis provided entrance to family records, and if the number obtained, as in some American surveys, is large, the sibships of the patients will include substantial numbers of fraternal and identical twins. It has been found that the incidence of Tuberculosis upon brothers (or sisters), fraternal twins and identical twins of the patients are in increasing frequency; the increase on passing from fraternal to identical twins is particularly noteworthy. This progression is greater than increasing similarity of environment, viz. opportunities of intra familiar infection, could reasonably explain. But—and this is of fundamental importance—the correlation—using the word in its non-technical sense—in respect of attack is much less than in respect of severity of attack; the identical twins of patients have a much greater proportion of severe or fatal cases of Tuberculosis amongst them than the fraternal twins. The suggestion, therefore, is that genetic constitution is of more importance in determining the course of an infection, if incurred, than in determining the infection itself.

We now pass to the statistics of Tuberculosis within our own county.

The sources of data for this investigation were record cards kept before 5th July, 1948, at County Hall, Chelmsford, of all patients attending any of the Tuberculosis Dispensaries in the Administrative County of Essex. The cards for each dispensary are kept separate, and consequently it is possible to extract particulars from the record cards of all the patients attending any particular dispensary, subject only to the proviso that, if a patient has moved to a part of Essex served by another dispensary, his record card will have been removed and placed under the dispensary at which he is, or was last, under observation. If a patient moves to some area outside Essex, this fact is noted on the card with the date of removal, and it is stored with the records of the dispensary last responsible for his observation. The same procedure applies if for any other reason the patient does not remain on the "active" register of the dispensary. The reasons for this are:—

- (i) Death ;
- (ii) Recovery ;
- (iii) " Lost sight of " ;
- (iv) " Not desiring or requiring further public medical treatment."

From these cards the following details were abstracted :—sex, age, occupation (often vaguely stated), date of commencement and conclusion of observation, from which were obtained the number of years and months under observation and the reason for cessation of observation. The investigation was limited to patients who first attended a dispensary between 1st January, 1930, and 31st December, 1946, and were diagnosed as suffering from pulmonary tuberculosis. 31st December, 1946, was taken as the terminal point of observation of patients on the active register; thus, a number of patients were only under observation for a short time. Additional information obtained related to the result of sputum tests, the categories being T.B. negative and T.B. positive; the latter group being sub-divided into +1, +2 and +3 according to the physical state of the patient. Details were also taken relating to institutional or other special treatment, but this did not appear to be precise enough to warrant using it as a basis of investigation. In all, the experiences of six dispensaries were analysed. These are :—

Epping, serving the Urban Districts of Chigwell, Epping and Waltham

Holy Cross, and the Rural Districts of Epping and Ongar.

Colchester, serving the Borough of Colchester.

Lexden and Winstree, serving the Urban Districts of Wivenhoe and West

Mersea and the Rural District of Lexden and Winstree.

Walthamstow, serving the Boroughs of Walthamstow and Chingford.

Ilford, serving the Borough of Ilford.

Halstead, serving the Urban and Rural Districts of Halstead.

The number of patients who came under observation at these dispensaries during the period varied from 2,526 at Walthamstow and 2,233 at Ilford to 679 at Epping, 495 at Colchester, 253 at Lexden and Winstree and 193 at Halstead. The total number of patients in each diagnostic class in the age groups 15–19, 20–24 and 25–29 were :—

<i>Sex and Age Group.</i>			—	+1	+2	+3
MALES	15–19	..	187	34	132	19
	20–24	..	193	64	233	30
	25–29	..	155	53	271	24
FEMALES	15–19	..	216	31	189	32
	20–24	..	310	62	268	42
	25–29	..	177	49	233	30

In Walthamstow and Ilford, the mortality experiences were examined in quinquennial age groups from 15 to 39 for females and from 15 to 59 for males, additional age groups being 0–14, 40–49 and “ 50 and over ” for females, and 0–14 and “ 60 and over ” for males. For the other dispensaries five age groups were taken for both sexes, 0–14, 15–24, 25–34, 35–49 and “ 50 and over.” Each age group was divided into four under the four diagnostic headings —, +1, +2 and +3. For each year under observation after the patient’s first visit to the dispensary, the number of deaths which actually occurred was compared with the number of deaths which would have been expected to have occurred if the patients had been subject to the mortality risks of the normal

population. The normal population taken was that of England and Wales in 1931, for which mortality rates at every year of life were calculated and published in English Life Table No. 10. To obtain the number of expected deaths, it was necessary first to determine the number of patients under observation in the required group, the number "exposed to risk." An adjustment for patients who "recovered" was made by including them after their recovery till the end of 1946, and giving them normal mortality rates for this period. Two mortality indices are thus available for any particular age group for any particular year of observation, namely, the "ratio of actual to expected" deaths and the "mortality rate," and these can be calculated for each diagnostic group in each age group. These figures have been averaged over the first five and the first ten years of observation, and both averages have been modified by the omission of the first ten weeks' experience to allow for patients whose cases were hopeless from the start and who could not reasonably be considered as having been treated under the County Tuberculosis Scheme.

Adding successive years' experiences involves the rather important assumption, in view of the number of cases that passed out of observation during the ten years, that these patients and those who were alive and under observation at the end of 1946, were an unbiased sample of patients in the group in question. This is probably not strictly true as we should expect that those who were well enough to move to another county would have a lower than average rate of mortality, but this outflow is balanced by a corresponding inflow of those who moved into the county from outside, and we may reasonably hope that they would be in much the same physical state as those who moved out. A test was made on the age group 20-24 in females (the largest age group and one where due to marriage and the war, there might be expected to be a large number of removals). Out of a total number of 682, 196 went out of observation (other than by death or recovery), their average period of observation being 3.08 years. Of these, 130 with an average period of observation of 2.94 years are known to have moved to another county. The total number moving into Essex was 138 with an average of 2.76 years' observation in another county. Thus, those who moved in more than make up the deficiency caused by those who moved out of Essex. The effect of a large number of persons being under observation for only a few years is to make the summary rates and ratios reflect unduly the very high mortality in the first few years of treatment. But although the figures may not be valuable in an absolute sense, they should be adequate for comparative purposes, since the effect is largely due not to "lost" cases but to the limit of observation at the end of 1946, whereby many cases only had a few years' observation, and this will be expected to act independently of age and the state of the disease. Supposing no patients passed out of observation except by death, the number at the end of any year's observation would be the number at the beginning less the number who died. If, now, we apply the observed rate for the second year to the number who would have entered that year on the hypothesis of no "lost" cases, we obtain the number of deaths which would have occurred in the second year. Continuing this process for later years and summing these numbers of "exposed to risk" and deaths over the ten years, we obtain a rate which will not exhibit the bias referred to above. This has been done for the male age groups and the relation between the rates at ages is substantially the same as that between the 0-10

mortality rates. The reduction in the rates is of the order of 10 to 20 per cent. The procedure referred to above is equivalent to that employed in calculating survivorship tables. Such tables have been calculated showing the expected number of deaths from 1,000 entrants in various age groups, and for a group of “ +1 ” patients, and the accompanying diagram shews the results.

The mortality rates (i.e. “ Actual Deaths ” divided by the number “ Exposed to Risk ”) for males, when plotted against age at first consultation, shew a fairly steady rise from the age group 5-9 to a peak in the age group 45-49, then after being steady from 50-64, the rate rises again at ages over 65. The rate for 0-4 is somewhat higher than for 5-9. For females, the mortality rate reaches a peak in the age group 15-19, drops at 20-24 and then rises steadily with age. The reality of the female peak has been confirmed by finding that the 15-19 rate is significantly above that for 20-24. This does not conflict with the fact that the general death rate from Tuberculosis is higher for 20-24 than for 15-19, since the rates above refer to patients suffering from Tuberculosis diagnosed while they were in the age groups in question. The male peak occurs in every dispensary except Walthamstow where a small fall occurs. Walthamstow is the dispensary with the largest experience, but in spite of this the 45-49 rate for the total experience is significantly higher than the roughly constant rate for the three other groups between 40 and 59.

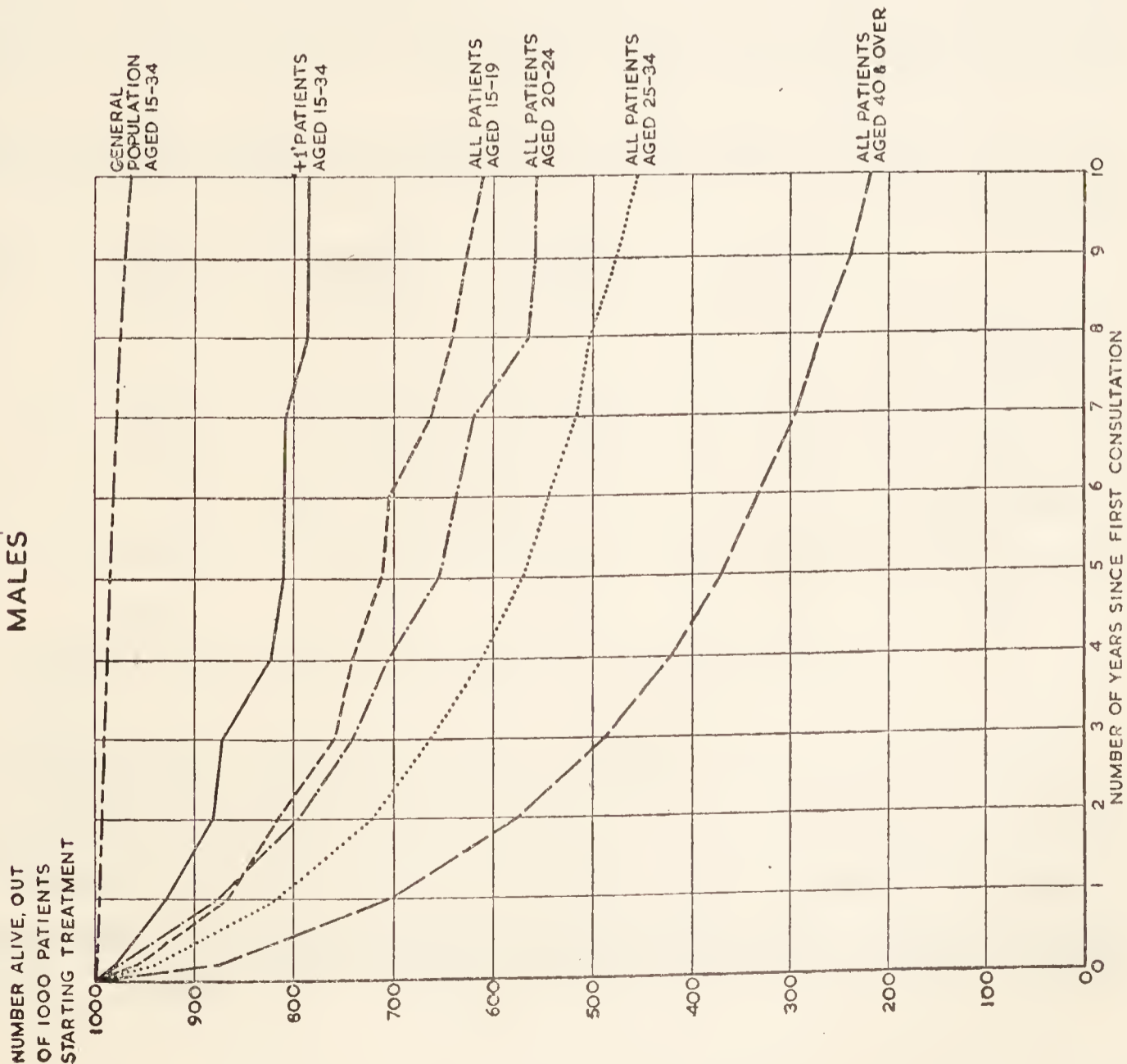
The “ Ratios of Actual to Expected ” when plotted against age, give a hump-shaped curve with the top of the hump in the region of 30 years of age. This maximum ratio is more than 23 for males and 25 for females. Superimposed on this curve, for females there is a very high peak reaching to 45 in the age group 10-14 (the expected deaths in this age group are less than for 15-19), and for males the ratios for the three age groups between 35 and 49 are about the same, and the curve then drops sharply to a value of 9.4 for 50-54 and to below 5 for ages over 60. In view of the great variation in the ratios of actual to expected with age, it does not seem that this is a suitable measure for a summary figure of a dispensary's experience for all ages. It reflects too much the mortality in the older age groups. In the sanatoria statistics, this measure was used as a summary figure for all ages, but, in the sanatoria, the percentage of older patients was considerably less than at the Essex dispensaries. Thus, the percentage of men over 42 at Midhurst was 14.5 and at Frimley 8.2, while at Walthamstow the percentage over 44 was 23.9 and at Ilford 21.6. A better measure appears to be a standardized mortality rate to eliminate the effect of different age distributions at different dispensaries. This is the measure used below to compare the experiences of the different dispensaries.

The classification into T.B. minus and plus 1, 2 and 3 has proved rather unsatisfactory. This arises from the fact that during the courses of a patient's illness, his diagnostic classification is sometimes changed and on the card the original diagnosis is not left, but for example, “ T.B. +II ” is changed into “ T.B. +III ” by the addition of “ I. ”. A change is always made when the sputum becomes positive for the first time, and there is evidence from the records that some patients have been moved from T.B. +1 to +2 or from +2 to +3 according to the state of the disease, but this movement is probably not large. In spite of these changes, the three groups of T.B. plus are

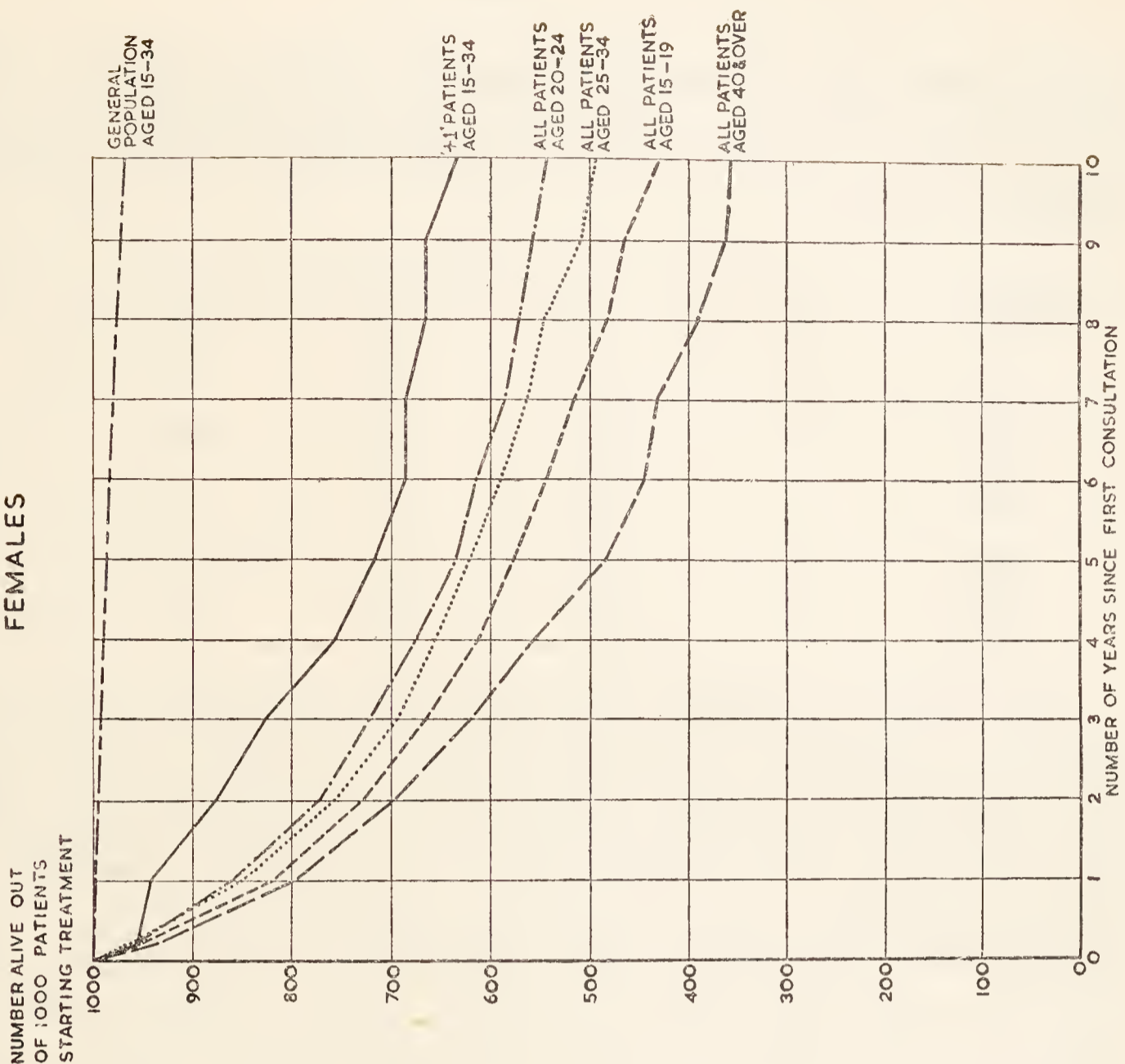
SURVIVORS AFTER TREATMENT

FOR PATIENTS IN VARIOUS AGE GROUPS

MALES



FEMALES



sufficiently distinctive to show very different mortality experiences. The following table shews the “ Ratios of Actual to Expected ” for each of the four classifications for young adult males (figures are those of the first ten years’ observation excluding the first ten weeks) :—

<i>Age at first attendance.</i>		<i>T.B.—</i>		<i>T.B. +1</i>		<i>T.B. +2</i>		<i>T.B. +3</i>		<i>All Pulmonary T.B.</i>
15-19	..	9.3	..	2.4	..	28.4	..	137.9	..	18.5
20-24	..	7.4	..	10.7	..	29.9	..	140.4	..	21.9
25-29	..	8.2	..	14.5	..	31.2	..	95.6	..	23.2
30-34	..	11.9	..	7.7	..	27.8	..	78.4	..	23.3
15-34	..	9.1	..	9.1	..	29.5	..	103.3	..	22.0

We notice that on aggregate T.B.— and T.B.+1 have the same ratio of actual to expected. The most interesting group is T.B.+1 as patients put in this group presumably represent those whose disease was detected early in its history, but the cases were undoubtedly of pulmonary tuberculosis. Included in this group will be those originally classed as T.B.+1 and those who were originally in Class T.B.— and were then moved to T.B.+1 (all of whom may reasonably be regarded as “ early ” cases) excluding those whose physical state deteriorated so much that they were moved to T.B.+2 or +3 and who might be expected to have a higher mortality rate. The result of this will be rather to overstate the mortality in the first year or two of treatment and understate it in later years. Unfortunately, the number of cases classed as T.B.+1 was small amounting in all to those of 296 males and 219 females, 8.4 per cent. and 7.7 per cent. respectively of the total cases, but this experience has proved sufficient to give some idea of the position. The results for the age groups 15-19 and 20-24 for males and females (ten year averages, excluding the first ten weeks when 4 patients died) are :—

<i>Age Group</i>		<i>No. of Patients.</i>		<i>Years of observation.</i>		<i>Expected Deaths.</i>		<i>Actual Deaths*</i>		<i>Ratio of Actual to Expected.</i>
MALES—										
15-19	..	34	..	139	..	0.433	..	1.046	..	2.4
20-24	..	62	..	225	..	0.750	..	8.024	..	10.7
FEMALES—										
15-19	..	31	..	132	..	0.360	..	2.021	..	5.6
20-24	..	64	..	173	..	0.517	..	13.007	..	25.2

*The decimals are the allowances made for “ recoveries.”

The number of observed deaths in the age group 15-19 does not disprove the contention that treatment of the disease has reduced the mortality to that of the normal population, but such a contention is untenable for the age group 20-24. If we take only those who started their treatment in Essex and credit all those who were passed out of observation with normal mortality until the end of the ten years or until the end of 1946, we get what may be termed the “ best possible ” interpretation

the results. This does not improve the male 20-24 ratio at all, but the female ratio is reduced to 11.7. It is found that 15-19 is the only age group where the T.B.+1 ratio is small enough to make tenable the hypothesis that treatment gives completely satisfactory results.

The following table gives standardized mortality rates for the six dispensaries for males and females separately :—

Dispensary.	Males.	Females.
Epping .. ..	.0830 ..	.0766
Ilford .. ..	.1004 ..	.0844
Walthamstow .. ..	.1025 ..	.0922
Lexden and Winstree ..	.1094 ..	.1149
Colchester .. ..	.1242 ..	.1297
Halstead .. ..	.1691 ..	.0950

We note that, if we omit Halstead, the order for both males and females is Epping, Ilford, Walthamstow, Lexden and Winstree, Colchester. Halstead males have an exceptionally heavy mortality, but the mortality of Halstead females is average. This sex difference suggests some occupational hazard, but after examination of the occupations of those who died, no such hazard could be discovered. Testing the dispensaries for differences between their mortality experiences, it is found that Halstead males and Colchester females shew significant divergencies, while Colchester and Epping males are just not significantly different from the average experience. But the most striking thing about these figures is the way the dispensaries fall into two groups, those in Metropolitan Essex and those in the North-East of the County, the latter group being consistently worse than the former. No cause for this difference has been discovered.

Generally speaking, the order of the mortality rates above is consistent with the hypothesis that social-economic status is an important factor in the difference between them. A satisfactory social-economic index is not easy to determine. What has been done is to assign males aged 15 to 64, as far as possible, to the social-economic classification adopted by the Registrar-General.* In some cases, occupations were not given and in many cases they were only given very vaguely. In general, the effect has been to increase the number in Group III (skilled workers) at the expense of other groups. The index that seems most satisfactory allows for variation in exactness of statement from one area to another by taking the ratio of those in Groups IV and V to those in Groups I and II. Indices calculated in this way for each dispensary are :—

Epping	1.7
Ilford	1.1
Walthamstow	2.7
Colchester	3.1
Lexden and Winstree	4.8
Halstead	4.5

*Group I—Professional and Managerial, Group III—Skilled Workers, Group V—Unskilled Workers, Group II intermediate between I and III and Group IV intermediate between III and V.—W.A.B.

There is an evident relationship between these indices and the mortality rates although the order is not quite the same. That this is not the only explanation of the differences is shewn by the fact that there is considerable variation within any one social-economic group, and also that Groups I and II (Professional and Managerial and others of similar status) often shew a higher mortality than Group III and sometimes than Groups IV or V as well.

On aggregate, when standardized in four age groups, mortality rates for the five social-economic classes are :—

I	..	.1143	.. (3 groups only used in view of the very small experience in 50-64 age group).
II	..	.1077	
III	..	.1029	
IV	..	.1204	
V	..	.1404	

There is a distinct progression as we pass from Group III to Group V, the Group V rate being significantly above that for Group III. Groups I and II have somewhat higher rates than has Group III, but the differences are not significant. Group I has the lowest mortality in the age group 35-49, but the mortality is very high, on a par with Group V, in the younger age groups.

We now propose to set out the conclusions to which this inquiry has brought us and will begin with the easier part of that duty, viz. how the statistical data might be improved from the standpoint of a county public health department, as we understand public health departments in the future will be able to devote more time to aetiological and epidemiological investigation and will be less burdened with clinical responsibilities.

It will be seen that the data at our disposal was defective in various ways. Thus we have no precise information as to the state of the patient at the time he came under observation. If it were a matter of routine that every person seeking advice and treatment were subjected to the ritual observed in the College of Physician's survey, this uncertainty would be removed.

The defect that patients pass out of observation is also serious but not to be remedied by any administrative order. Information respecting occupation, economic status, housing conditions, etc., has been found defective; here a standard form of questionnaire would surely improve the position. These proposals involve the expenditure of much time and labour; generosity at the expense of somebody else is the easiest of virtues. But the centralization of the statistical work and the use of modern sorting and tabulating machinery would lighten the labour. We have indicated above some contrasts within our area, but it is evident that more, as well as more exact data would be required to justify firm conclusions. County boundaries are not wholly arbitrary but there is not much difference between villages, say north and south of the Stour and the extremely interesting question whether the natural history of Tuberculosis and its response to treatment differ between the "real" country, small country towns and great towns is still incompletely answered. Pooling rural districts within larger areas than counties would save time.

Do the statistics we *have* analysed justify us in concluding that present schemes effect a large proportion of cures? We have already pointed out that "cure" is a highly ambiguous term and that the actuarial test which was introduced by the writers of 35 years ago and used by us is perhaps unreasonably stringent. At least it may be said that our results in cases at the earliest stage are certainly not *less* satisfactory than those of the earlier writers. But the proportion of such early cases is lamentably small and, as we have pointed out, the administrative or psychological problem of largely increasing that proportion is difficult to solve. It is indeed a problem on which the opinion of statisticians is of no more value than that of any man in the street and of much less value than that of Tuberculosis Officers. But the information we have brought together may be of some use to them.

PART IV.

MATERNITY AND CHILD WELFARE.

The County Council's Maternity and Child Welfare Schemes were continued during the year 1947, on the same lines as in previous years, improvements being introduced wherever possible.

County Area.

The schemes were maintained in the 31 (out of a total of 43) County Districts in which the County Council is the Welfare Authority, and this area remains the same as in 1946. In 37 out of the 43 sanitary districts, the County Council was the Local Supervising Authority under the Midwives Acts.

Births.

The numbers of births notified by midwives in the County Council's Welfare Area numbered 5,825. A further 3,943 were notified by doctors or parents. In addition 73 instances of unnotified births came to notice. The total of 9,841 compares with 9,567 in the previous year.

Maternal Deaths.

Six maternal deaths were notified as against eleven in 1946. The maternal mortality rate in the County Council's Welfare Area was 0.68 as compared with a rate of 0.81 in the Administrative County, and 1.27 for England and Wales. The confidential special investigations made in regard to maternal deaths at the request of the Ministry of Health were continued to establish as far as possible the contributory causes of maternal deaths.

Ante-Natal Clinics, Maternity and Child Welfare Centres, Weighing Centres, Toddlers' Clinics and Women's Welfare Clinics.

The following particulars give information in regard to the various clinics which were in operation at the end of the year 1947 :—

- 38 Ante-Natal Clinics.
- 137 Child Welfare Centres.
- 6 Toddlers' Clinics.
- 24 Weighing Centres.
- 12 Women's Welfare Clinics.

New Centres were established during the year as follows :—

Ante-Natal Clinics at Chingford (Marmion Avenue).

Child Welfare Centres at Ardleigh, Boreham, Great Bentley, Thorpe-le-Soken, *Willingale, *Fyfield, *Moreton, *Wix, *Stondon Massey, *Hullbridge and *Blackmore.

*Formerly Weighing Centre.

Weighing Centres at Clavering, Basildon, Chigwell and Chingford (16, The Avenue).

Women's Welfare Clinics at Clacton and Chingford (Marmion Avenue).

In October, 1947, an opportunity was taken to re-establish the Annual Conference of Committees of Voluntary Workers of Child Welfare Centres, and an interesting discussion took place on "The Place of the Voluntary Worker under the National Health Service Act, 1946."

These Committees co-ordinate the work of the Centres and stimulate enthusiasm, and tribute must be paid to them for the way in which they carry out this unspectacular but important part of the work year by year. Difficulties are experienced in finding new volunteers to help in the service, and it is hoped that more workers will be forthcoming to ensure a continuance of voluntary effort in connection with the Centres.

Provision of Milk, Nutrients and Medicaments.

The Ministry of Food products of orange juice, cod liver oil and vitamin A and D tablets were, as in previous years, supplied free through most of the Welfare Centres for expectant and nursing mothers and children under the age of five years. Health Visitors and voluntary workers continued to co-operate with Local Food Offices, and from information supplied by the Ministry of Food during the year under review, the following issue of vitamins was made in the County Welfare Area :—

	Bottles.
Orange Juice (vitamin C)	773,370
Cod Liver Oil (vitamins A and D)	139,801
A and D Tablets (vitamins A and D)	31,471

Orange juice is available for children up to five years of age. The uptake of cod liver oil fluctuates according to the season, an increase being noticeable during the winter months. A and D tablets are only available to expectant mothers and after confinement for a period of 30 weeks.

Dental Treatment and Dentures.

During the year under review, a total of 3,162 patients received treatment as indicated below :—

- 2,194 expectant and nursing mothers received dental treatment only.
- 383 expectant and nursing mothers received dental treatment and were provided with dentures.
- 585 pre-school children under five years of age received dental treatment.

Arrangements were made for the services of a County Dental Surgeon to be available for the Borough of Wanstead and Woodford in respect of dental treatment for expectant and nursing mothers and toddlers residing in that autonomous Borough.

Domestic Help Scheme.

The Domestic Help Scheme will play a more and more important part in the services to be made available in the future, and it is pleasing to report that the demand on the service is growing steadily, as will be seen from the information given below :—

	1944		1945		1946		1947
No. of whole-time Domestic Helps	4	..	8	..	19	..	24
No. of occasional Domestic Helps	90	..	150	..	303	..	415
No. of cases attended	120	..	313	..	701	..	993

The following is an analysis of the cases attended during 1947, showing (i) the areas of the County in which use has been made of the Scheme; and (ii) whether attended by full-time or occasional Domestic Helps. The figures in brackets are those for the year 1946 :—

					Full-Time.		Occasional.
Urban Districts—							
Benfleet ..	..	..	..	..	4 (3)	..	12 (4)
Billericay ..	..	..	..	..	19 (10)	..	115 (68)
Braintree and Bocking	..	..	..	..	— (—)	..	15 (9)
Brentwood ..	..	..	..	..	45 (35)	..	18 (15)
Brightlingsea ..	..	..	..	..	— (—)	..	9 (—)
Burnham-on-Crouch	..	..	..	..	6 (1)	..	1 (—)
Canvey Island ..	..	..	..	..	3 (1)	..	10 (—)
Chigwell ..	..	..	..	..	13 (18)	..	62 (34)
Chingford B. ..	..	..	..	..	9 (5)	..	142 (109)
Epping ..	..	..	..	..	— (—)	..	— ( 4)
Frinton and Walton	..	..	..	..	— (—)	..	— (—)
Halstead ..	..	..	..	..	— (—)	..	6 (2)
Hornchurch ..	..	..	..	..	126 (66)	..	175 (173)
Maldon B. ..	..	..	..	..	3 (—)	..	24 (6)
Rayleigh.. ..	..	..	..	..	14 (16)	..	13 (26)
Saffron Walden B.	..	..	..	..	— (—)	..	— (—)
Waltham Holy Cross	..	..	..	..	— (—)	..	9 (13)
West Mersea ..	..	..	..	..	— (—)	..	— (—)
Witham ..	..	..	..	..	— (—)	..	4 (2)
Wivenhoe ..	..	..	..	..	— (—)	..	1 (—)
Rural Districts—							
Braintree ..	..	..	..	..	— (—)	..	4 (6)
Chelmsford ..	..	..	..	..	15 (9)	..	20 (12)
Dunmow ..	..	..	..	..	— (—)	..	7 (1)
Epping ..	..	..	..	..	— (—)	..	22 (4)
Halstead.. ..	..	..	..	..	— (—)	..	5 (16)
Lexden and Winstree	..	..	..	..	— (—)	..	1 (—)
Maldon ..	..	..	..	..	— (—)	..	15 (6)
Ongar ..	..	..	..	..	2 (—)	..	7 (6)
Rochford ..	..	..	..	..	6 (1)	..	18 (12)
Saffron Walden ..	..	..	..	..	— (—)	..	13 (8)
					265 (165)	..	728 (536)

The Domestic Help Organizer, whose appointment was referred to in last year's Report, commenced duty on the 5th January, 1948.

Within the limits set by the availability of personnel to give effective service every effort is made by means of contact with representatives of women's organizations to ensure that the Scheme is constantly before the notice of the general public.

Puerperal Pyrexia Regulations, 1939.

During the year, copies of notifications made by medical practitioners were received from Medical Officers of Health of County districts in the Administrative County in respect of 259 cases of puerperal pyrexia, as against 327 in 1946. Of these, 57 were in respect to cases in the County Welfare Area. Ten patients were admitted to hospital from the County Welfare Area during the year and under the arrangements in existence the services of a consultant obstetrician were provided where necessary.

Public Health (Ophthalmia Neonatorum) Regulations, 1926-1937.

During the year ended 31st December, 1947, 51 cases of ophthalmia neonatorum were notified in the Administrative County, and of these 15 related to patients residing in the County Welfare Area. Four of these were treated at home, and seven were admitted to hospital. In no case was the vision impaired.

Hospital Treatment of Maternity Patients.

The demand for hospital beds continued and the system of priorities referred to in last year's Report whereby patients were admitted to hospital in cases where there existed some conditions likely to complicate pregnancy, or where the home conditions were considered unsatisfactory, was again strictly applied. Reports received from the Health Visitors in regard to home circumstances are carefully scrutinised, but in spite of the system of priorities there was an increase of 246 women admitted under the County Council's arrangements (2,519 in 1947 as compared with 2,273 in 1946).

In order to overcome difficulties in providing sufficient accommodation, arrangements were made during the year with three private maternity homes in the County for the admission of a limited number of maternity patients. This additional provision, together with the establishment of a maternity unit at St. Andrew's Hospital, Billericay, was a great asset in relieving the position.

Treatment of Minor Ailments—Children under School Age.

During the year, 43 children under school age received operative treatment for the removal of adenoids and tonsils, or for circumcision.

Treatment of Orthopaedic Patients.

The arrangements for the treatment of children under the age of five years suffering from orthopaedic defects were continued, and during the year nine children received hospital in-patient treatment, 1,184 children attended at after-treatment centres, and 769 examinations were carried out by the orthopaedic surgeons. Twenty-five after-care centres were in operation at the end of the year.

Obstetric Specialists.

The statistical information given below relates to the work undertaken during the year by the part-time obstetric specialist, Mr. Alan Brews, whose services continued to be available to hospitals, medical practitioners and Assistant County Medical Officers. The total number of patients examined in 1946 was 521 :—

Clinic or Hospital.	No. of Patients Examined.
*St. John's Hospital, Chelmsford	238
*Chingford Combined Treatment Centre	28
St. Margaret's Hospital, Epping	204
Essex County Hospital, Black Notley	17
Various	48
	—
	535
	—

*Consultative Clinic.

In addition, 101 operations were carried out by Mr. Brews, of which 50 were major operations.

Dr. Margaret Puxon, whose services as consulting gynaecologist and obstetrician were mainly utilized in the Colchester and surrounding areas, attended 22 cases.

Nursing Homes.

The number of Registered Nursing Homes at the end of the year was as follows :—

(a) Maternity Homes only	19
(b) Maternity and Nursing Homes	14
(c) Nursing Homes (including Convalescent Homes)	23

Routine inspections have been made at regular intervals and generally speaking bearing in mind the difficulties regarding staff and supplies which existed throughout the year, the conditions prevailing in the Homes were satisfactory.

Child Life Protection.

At the end of the year, there were 242 foster-children in the care of 190 foster mothers, 29 of whom participate in the County Council's Guaranteed Payment Scheme.

The visiting of children under the age of nine years in foster homes, and of children pending adoption, continued to be undertaken by the Health Visitors.

In two cases, warning letters were issued in connection with a contravention of the provisions of Section 215 of the Public Health Act relating to advertisements.

Adoption of Children (Regulation) Act, 1939.

During the year 43 notifications were received, resulting in the adoption of 22 children. In the remaining 15 cases, the arrangements for adoption were still pending at the end of the year.

In one instance, it was necessary to send a letter of warning to the publishers of a periodical, drawing attention to an advertisement which contravened the provisions of the Act.

Midwifery Service.

At the end of the year the following midwives were employed in connection with the County Council's scheme under the Midwives Act, 1936. Particulars relating to the number of cases they attended during the year are also given :—

			Midwifery.		Maternity.
20 County Council Midwives	..	..	887	..	328
31 Welfare Council Midwives	..	..	1,589	..	613

In addition, 359 midwives were in domiciliary and institutional practice at the end of the year. Forty-eight of them were practising independently.

The total number of live births and still births which occurred in 1947 in the 37 out of 43 Sanitary Districts comprising the area for which the County Council is the Local Supervising Authority under the Midwives Act, (i.e. excluding the Boroughs of Barking, Colchester, Dagenham, Ilford, Leyton and Walthamstow), was 17,974 and of these, 9,741 (54.19 per cent.), were attended by midwives in the capacity of midwife, and 4,707 (26.19 per cent.), in the capacity of maternity nurse.

Particulars are given below in regard to the various notifications received from State certified midwives during the year in accordance with the Rules of the Central Midwives Board :—

Records of Medical Aid	..	..	..	..	2,458*
Records of Still -Births, Deaths of Mothers and Infants	..				193
Artificial Feeding	..	..	..	..	208
Liability to be a source of infection (including all cases of high temperature) ..	..	..	..	..	148
Laying out for Burial	..	..	..	..	118
Ophthalmia Neonatorum or Discharging Eyes (including cases notified as Ophthalmia Neonatorum)	..	..	..	..	91

*Percentage of confinements attended by midwives in which medical aid was sought—25.2

GAS AND AIR ANALGESIA. The arrangements for the training of midwives in the administration of gas and air analgesia were continued, and during the year 42 midwives obtained their certificate of proficiency in gas and air analgesia. At the end of the year 1947, there were 135 midwives who had qualified in the use of the apparatus. The number of cases in which analgesia was administered by midwives in domiciliary practice during the year was 902.

HOUSING ACCOMMODATION. The provision of proper and suitable housing accommodation for midwives was pursued in co-operation with District Councils. The negotiations proved to be somewhat prolonged and no houses had been actually allocated to midwives at the close of the year.

PROVISION OF ANE-NATAL RECORDS. During the year the Central Midwives Board revised the ante-natal record form used by midwives.

AMENDMENTS TO SECTIONS B AND E OF THE RULES OF THE CENTRAL MIDWIVES BOARD. In June and September, 1947, the Central Midwives Board issued certain amendments to Section B of the Rules relating to (a) the syllabus laid down for first period training schools, and (b) instructions in gas and air analgesia. A complete revision of Section E of the Rules took place during the year dealing with the regulation, supervision and restriction of the practice of midwives which came into effect on 1st October, 1947. One of the main features was the obligation upon all midwives to notify the Local Supervising Authority of their intention to practise when acting as a maternity nurse.

It was necessary during the year to severely reprimand a midwife for an infringement of the Rules of the Central Midwives Board.

DOCTORS' FEES. The following table gives particulars of the number of medical aid notices received from midwives during the year, together with the corresponding number of doctors' claims made against the County Council in respect of such notices. As a matter of interest, similar particulars are also given for the years 1945 and 1946 :—

		No. of Medical Aid Notices received.		No. of Medical Aid Notices for which Doctors' claims have been received.
1945	..	2,167	..	1,421
1946	..	2,395	..	1,776
1947	..	2,458	..	1,883

ESSEX COUNTY NURSING ASSOCIATION. In spite of difficulties in obtaining statistics the Essex County Nursing Association continued to render invaluable assistance in maintaining an adequate midwifery and district nursing service in the areas for which the County Council was responsible, especially in the scattered rural areas.

To assist the Association in the provision of equipment for district nurse midwives the County Council agreed to an additional grant of not exceeding £200.

There were 147 District Nursing Associations affiliated to the Essex County Nursing Association, 140 of which undertook midwifery and district nursing, the remaining seven carrying out general nursing duties only.

Between them, the 147 Associations referred to above employed 167 district nurse midwives and 17 general nurses for general nursing duties only.

Hostel for Mothers and Babies, "Ardmore," Buckhurst Hill.

The main object of this Hostel is to provide accommodation for mothers with their babies, who, after confinement, may experience difficulty in coping with their immediate future.

During the year, 42 mothers and babies, and nine expectant mothers were admitted to the Hostel, the average length of stay being 41 days and 72 days respectively. In addition, 10 mothers, the majority accompanied by their babies, were admitted to the Hostel for convalescence, the average length of stay being 20 days.

Care of Premature Infants.

The arrangements whereby all infants weighing $5\frac{1}{2}$ lbs. or less at birth are kept under special observation by the Health Visitors were continued. The Domestic Help Scheme also plays an important part in the care of premature infants, the services of a Domestic Help relieving the mother of her household duties so that she can give her whole attention to the baby.

Comparative figures for the years 1945, 1946 and 1947 are given below, showing the number of notifications received in respect of children weighing $5\frac{1}{2}$ lbs. or less :—

		No. of Births in County Council Welfare Area.		No. of Notifications received of children weighing $5\frac{1}{2}$ lbs. or less.
1945	..	8,928	..	298
1946	..	9,567	..	334
1947	..	9,841	..	307

Dr. K. H. Tallerman, the part-time consulting paediatrician, has been of great assistance to Assistant County Medical Officers and medical practitioners, and the arrangements for the holding of Consultative Clinics at the undermentioned hospitals were continued :—

Oldchurch County Hospital, Romford.

St. John's Hospital, Chelmsford.

St. Margaret's Hospital, Epping.

Essex County Council Hospital, Black Notley.

Essex County Council Hospital, Wanstead.

Care of Illegitimate Children.

Under the County Scheme, guaranteed payments were made to suitable foster-mothers who undertook the care and maintenance of babies apart from their mothers, and at the end of the year 29 foster mothers were participating in the Scheme.

The work carried out by the Chelmsford Diocesan Moral Welfare Association is of the utmost importance in relation to the care of the illegitimate child, and the County Council's grants to this Association to assist in maintaining the various Shelters were continued.

The Residential Nursery at Writtle Wick referred to in last year's Report was opened on 17th April, 1947, and although both legitimate and illegitimate children are admitted, this Nursery, together with the Hostel for Mothers and Babies at "Ardmore," Buckhurst Hill, are of material assistance.

General.

During the year 1947, 12,516 priority dockets were issued to enable expectant mothers who are being confined in their own homes to obtain a supply of sheets. The number of maternity outfits issued during the year was 297.

Convalescent Treatment.

During the year 1947, seven cases were admitted to various Convalescent Homes.

Nursery Provision for Children under five years of age. Residential Nursery Accommodation—Writtle Wick, Chelmsford.

On the 17th April, 1947, the Residential Nursery temporarily housed at the Halstead Isolation Hospital was transferred to "Writtle Wick", Chignal Lane, Chelmsford. In the main, children are admitted for short-stay periods either on account of illness at home or confinement of mother, and up to the end of the year 1946 70 children had been admitted. The Nursery is approved as a Training Nursery for the examination of the National Nursery Examination Board six students being accepted for training during the year.

Day Nursery Accommodation.

The following gives particulars of the Day Nurseries in operation at the end of the year :—

Name.	Accommodation.	Opened.
Hornchurch 75, North Street (whole-time)	30 children ..	1st July, 1942.
Witham, "Brookcote," .. Chipping Hill (whole-time)	20 children ..	14th September, 1942.
*Rainham, Rainham Hall (whole-time)	45 children ..	6th January, 1943.
*Waltham Abbey, "The Cedars," Sewardstone Road (whole-time)	40 children ..	16th March, 1943.
Saffron Walden, Friends' Meeting House (part-time)	36 children ..	1st December, 1941.
*Chingford, 136-138, .. Chingford Mount Road (whole-time)	52 children ..	20th September, 1943.
*Chingford, Hatch Lane .. (whole-time)	50 children ..	12th April, 1944.
*Upminster, 23, Hall Lane (whole-time)	40 children ..	1st December, 1943.
Hornchurch, 8 and 9, .. Elm Park Parade (whole-time)	30 children ..	29th December, 1943.

*Training Nurseries.

The pressure on accommodation at Day Nurseries continued to be very acute and although every endeavour was made to establish additional Nurseries, particularly in the Hornchurch and Chingford areas, no progress had been made by the end of the year owing to the difficulty in obtaining conveniently placed and suitable premises.

Arrangements were made during the year for three Matrons of Day Nurseries to attend a Course promoted by the Nursery School Association of Great Britain for Matrons of Day and Residential Nurseries.

In March, 1947, the Ministry of Health and Ministry of Education issued a Joint Circular drawing attention to the importance of filling vacancies for Wardens in Day Nurseries, and by co-operation with the Education Committee suitable Courses were arranged at which staff from County Council Nurseries attended.

COMBINED MEDICAL SERVICE.

CLACTON AND FRINTON AND WALTON URBAN DISTRICTS. Dr. J. Ramsbottom continued as Acting Medical Officer of Health, and Assistant County Medical Officer for Clacton and Frinton and Walton Urban Districts.

BOROUGH OF CHINGFORD. Dr. J. L. Miller Wood, Senior Medical Officer, continued to carry out the duties as Acting Medical Officer of Health to the Borough of Chingford until the appointment of Dr. J. H. Crosby in succession to Dr. W. D. Hyde. Dr. Crosby commenced duty on the 1st April, 1947.

EPPING URBAN AND EPPING AND ONGAR RURAL DISTRICTS. Dr. H. Franks commenced duty on the 14th April, 1947, as the first whole-time Medical Officer of Health for the Epping Urban, and Epping and Ongar Rural Districts, and Assistant County Medical Officer, the three part-time Medical Officers of the respective districts, Dr. J. Watney, Dr. R. Evans and Dr. A. S. David, having terminated their appointments by agreement. Dr. R. Evans acted as temporary Medical Officer of Health for the Epping Rural District from 1st January, 1947, subsequent to the resignation of Dr. W. F. Erskine, until Dr. Franks commenced duty.

CHIGWELL AND WALTHAM HOLY CROSS URBAN DISTRICTS. Dr. L. S. Fry relinquished the appointment of Medical Officer of Health and Assistant County Medical Officer for the Waltham Holy Cross Urban District on 31st July, 1947, and Dr. H. Franks carried out the duties of temporary Medical Officer of Health and Assistant County Medical Officer for that authority as from 1st August, 1947.

COMBINED NURSING SERVICE.

On the 31st December, Health Visiting Staff were employed on Child Welfare work on behalf of the County Council as follows :—

57 Whole-time (also undertaking School and Tuberculosis work)	}	Equivalent whole-time Health Visitors for Child Welfare—approx. 22.
1 Part-time (also undertaking School and Tuberculosis work)		

N.B.—The above figures do not include the Superintendent Health Visitor and her assistant, but includes the Relief Health Visitors and Probationer Health Visitors; District Nurse Midwives continue to assist the Health Visitors as far as possible.

PART V.

SOCIAL WELFARE.

Hospitals and Institutions.

The hospitals and institutions under the control of the Social Welfare Committee continued to provide a valuable service against all the obstacles created by lack of staff and difficulties of obtaining supplies. Many minor improvements to buildings for the comfort of patients and the better organization of the hospitals were effected during the year.

At St. John's Hospital, Chelmsford, and St. Margaret's Hospital, Epping, additional posts for medical specialists were created during the year.

The former Suttons Institution was renamed St. George's Hospital, and the work of its reinstatement as part of the hospital service was actively pursued.

Domiciliary Medical Service.

During the year, the domiciliary medical service arrangements continued to work smoothly, the following temporary appointments being made in the undermentioned Medical Relief Districts following upon the resignation or death of an existing Medical Officer :—

Halstead, Gosfield and Maplestead.

Boxted and Great and Little Horkesley.

Grays (West).

Seven Kings and part Hainault (Ilford), North Ward.

Tillingham, Dengie, Bradwell and St. Lawrence.

Brightlingsea.

An extension in the Free Choice of Doctor Scheme was made by the inauguration of the Scheme in the Great and Little Wakering Medical Relief Districts as from the 1st April, 1947.

There was a considerable number of changes in the panels set up under the Free Choice of Doctor Scheme in the various districts where the scheme is in operation.

PART VI.

THE NATIONAL HEALTH SERVICE.

The National Health Service Act, 1946, which received the Royal Assent in November, 1946, had as its object the re-organization on an orderly basis of all the services affecting the personal health of the individual, the public provision of which has grown with such impetus since the beginning of the century. It makes provision for a comprehensive service for the prevention, diagnosis and treatment of illness which, with certain exceptions, is free to the recipient. For this purpose new statutory authorities have been set up ; (a) the Central Health Service Council to aid the Minister of Health in an advisory capacity in regard to the implementation of the Service ; (b) Regional Hospital Boards to administer hospitals (except teaching hospitals) and specialists services through Hospital Management Committees ; (c) Executive Councils to exercise functions in connection with the general medical and dental services, pharmaceutical service and supplementary ophthalmic service ; (d) Local Health Authorities (i.e. County Councils and County Borough Councils) to administer local services which in the main are supplementary to the services administered by the Regional Hospital Boards and Executive Councils. The Act vests a power in the Minister to approve or vary schemes of administration and to issue regulations relating to the conduct of services, and he is thus the main co-ordinating factor in respect to the services provided at all the levels indicated above.

Local Health Authority.

In accordance with the provisions of Section 19 of Part III of the Act the County Council became the Local Health Authority for the whole of the Administrative County. It did not at once proceed to appoint a Health Committee in accordance with the Fourth Schedule of the Act, but instead on 1st April, 1947, appointed a Health Services Development Committee charged with the duty of formulating and submitting to the Council Proposals for carrying out its duties as Local Health Authority and of considering any other questions arising under or incidental to the Act. No representatives of outside bodies were appointed to the Committee, as it was felt to be preferable and would give the Committee greater freedom of action to authorize them to invite to their meetings from time to time in an advisory capacity such persons as could best help in their deliberations. This Committee appointed Councillor Lt.-Cdr. H. Denton, R.N. (retd.), J.P., the Chairman of the Public Health and Housing Committee, as its Chairman, thus preserving a measure of continuity between the old services and the new. It met on six occasions during the year 1947.

Provisions of Services.

The 5th of July, 1948 (to coincide with the coming into operation of the National Insurance Act, 1946), was fixed by the Minister of Health as the Appointed Day for the purposes of the Act, and during the year 1947 he specified by circulars the last dates for the submission of Proposals for the discharge of the Council's functions under Sections 21 to 29 and 51. The Proposals were duly submitted on or about the dates

stipulated, and although they did not receive the Minister's approval until 1948, they represent a relatively large proportion of the work undertaken in the Health Department during 1947 ; they are, for record purposes, reproduced as part of this Report.

It should be recorded that the preparation of the Proposals involving as it did an immense amount of preliminary investigation, enquiry and correlation of relevant information, was carried out concurrently with the day to day work of the Department, of which the preceding pages of this Report give but a bare outline. Additional assistance was provided to the extent of three temporary clerks of junior status and with no previous experience in local government, but if much ready co-operation and help had not been forthcoming from the office of the Clerk of the Council the task could not have been completed in the time specified.

A record should also be made of the co-operation and assistance freely given by the staffs of County District Councils and of voluntary organizations in supplying information regarding the services in existence which was so essential to the formulation of the future arrangements. Some difficulty arose over the negotiations with the Essex County Nursing Association, who at once time submitted alternative Proposals to the Minister, but before the Appointed Day a measure of agreement had been reached in regard to the transfer of their home nursing and midwifery services to the County Council.

As a matter of convenience reference may be made to the Proposals which, at the request of the Minister, were made early in 1948, in connection with Health Centres (Section 21), and they are for the same reason reproduced in this Report. The object of these Proposals is to preserve the *status quo* in connection with General Dental Services provided in and by the Boroughs of Barking and Walthamstow.

Decentralization of Administration.

Quite apart from the statement made by the Minister of Health on 3rd July, 1947, a consideration of what was involved by the new arrangements called for some measure of delegated administration. For as many years as the County Council had itself been providing the services affected, certain Borough Councils responsible to large populations on the fringe of London had provided similar and additional services on a greatly enhanced scale, and these services were the object of much civic pride. Furthermore it was obvious that in a large County like Essex it would be impossible to administer all the services by a system of central control.

Consequently in May, 1947, certain proposals for a scheme of decentralized administration were drawn up in the Department as a basis for discussion. A scheme had not been formulated at the end of the year, but a preliminary conference had taken place with representatives of local authorities at which major issues were discussed and points of details being left for further consideration.

Proposals.

On the following pages will be found the Proposals for the provisions of the various services as approved by the Minister of Health.

ADMINISTRATIVE COUNTY OF ESSEX.

NATIONAL HEALTH SERVICE ACT, 1946.

SECTION 21.

Proposed arrangements for provision, equipping and maintenance of certain Health Centres in the Boroughs of Barking and Walthamstow

PART I.

Existing Services.

There are at present a number of clinics provided by the Borough Councils of Barking and Walthamstow at which dental treatment facilities are available not only for expectant and nursing mothers, young children and children of school age, but also for members of the general population of those boroughs.

It is anticipated that, on 5th July, 1948, being the appointed day fixed for that and other purposes pursuant to the provisions of the National Health Service Act, 1946, the clinics referred to will be transferred from the Borough Councils of Barking and Walthamstow respectively, as the case may be, to the County Council, in accordance with The National Health Service (Transfer of Local Authority Functions) Regulations, 1948, and will, on and from the appointed day, form part of the services to be provided by the County Council as Local Health Authority in accordance with their Proposals, as already approved by the Minister, with certain modifications, for the carrying out of the functions of the County Council under Section 22 of that Act.

PART II.

Description of the service which it is proposed to operate on the Appointed Day.

1. As the result of consultations with the Executive Council for Essex and subject to the transfer to the County Council of the premises listed in paragraph 4 below, it is proposed to provide, equip and maintain the premises as health centres to the satisfaction of the Minister. It is proposed to make available at the centres facilities for the provision of general dental services under Part IV of the Act by dental practitioners and for the provision of the dental care which the local health authority are required to provide for mothers and young children under Section 22 of the Act. The authority intend to permit the use of the premises also for school dental services in accordance with Section 63 of the Act.

2. The authority will provide at the health centres such receptionists, dental technicians and other ancillary staff as may be approved by the Minister.

3. It is proposed that in accordance with Section 46 of the Act, the facilities of the health centres shall be made available for the provision of general dental services on such terms as may be agreed between the Executive Council and the Council and approved by the Minister.

4. The addresses of the premises to which these proposals relate are as follows :—

Barking	..	Central Clinic, Vicarage Drive, Ripple Road. Manor Clinic (Manor School), Sandringham Road. Bifrons Clinic (Bifrons School), Bromhall Road. Woodward Clinic, Woodward Road. Porters Avenue Clinic, Porters Avenue.
Walthamstow		Town Hall Clinic. (Clinic in former air raid shelter adjoining Town Hall).

SECTION 22.

Proposed arrangements for the Care of Mothers and Young Children.

PART I.

GENERAL STATISTICAL DATA.

1. Total mid-1946 population of the Authority's area—1,436,450.
2. Total mid-1946 number of children under five in the Authority's area—114,190.
3. Number of registered live births in the Authority's area, legitimate and illegitimate—

		Legitimate.		Illegitimate.		Total.
(a) 1945	..	20,473	..	1,741	..	22,214
(b) 1946	..	28,104	..	1,535	..	29,639

EXISTING SERVICE.

Under the Public Health Act, 1936, the County Council as Welfare Authority provide in thirty-one of the forty-three County Districts in the Administrative County a service for the care of expectant and nursing mothers and young children. Under the same powers, the Councils of the Boroughs of Barking, Chelmsford, Colchester, Dagenham, Harwich, Ilford, Leyton, Romford, Walthamstow and Wanstead and Woodford, and the Urban District Councils of Clacton-on-Sea and Thurrock respectively, provide a similar service in their districts.

The County Medical Officer is responsible to the County Council for the organization and operation of the service. He is assisted centrally by the Deputy County Medical Officer, a Senior Medical Officer, a Superintendent Health Visitor who has a Deputy and a Nursery Supervisor, together with lay administrative and clerical staff.

Arrangements on similar lines but on a smaller scale, have been made by the other welfare authorities in the Administrative County.

Throughout the Administrative County the health visiting service (described in proposals submitted to the Ministry in relation to the services to be provided under Section 24 of the National Health Service Act, 1946) provides an advisory service for expectant and nursing mothers and children not attending school, both in the home and at clinics and centres established for the purpose.

The health visiting staff employed directly by the County Council and by the other welfare authorities is supplemented in most districts by utilizing the part-time services of district nurses under arrangements made with the Essex County Nursing Association, with local District Nursing Associations, most of which are affiliated to that body, and with one voluntary organization.

Ante-natal, post-natal and child welfare clinics, and day nurseries, of which statistical details are set out in Appendix A to these proposals, have been established by the County Council and the other welfare authorities, either in permanent combined treatment and other centres specially erected, or in other premises acquired or hired for the purpose. Both the County Council and the other welfare authorities have arrangements, whereby medical officers and ancillary staff are in attendance at these clinics and in most ante-natal clinics a midwife is present. In the Boroughs of Ilford and Walthamstow arrangements also exist for ante-natal examinations to be carried out by general practitioners at their surgeries.

Post-natal clinics are either provided separately or in conjunction with ante-natal clinics; in certain areas there are separate gynaecological and family planning clinics.

A consultant obstetrician and gynaecologist is available for consultations at the clinics.

At child welfare clinics the County Council, in conjunction with their other health services, provide a specialized service for orthopaedic, skin, ear, nose and throat, ultra-violet light and ophthalmic treatment. The Council's part-time Paediatric Consultant is available for consultations at their child welfare clinics. Some of the other welfare authorities also provide a consultant's service.

In the Boroughs of Barking and Walthamstow, foot clinics, orthoptics and cleansing facilities are available. The Council of the Borough of Barking provide dinners for necessitous expectant and nursing mothers and young children. A rheumatism clinic is available in the Borough of Ilford, and foot and scabies clinics are provided by the Council of the Borough of Dagenham. In the Borough of Leyton all the treatment facilities available for children of school age are also available for children under school age.

In some areas the County Council have a scheme for contributing towards the cost of transport of expectant and nursing mothers and infants who live at a distance from the nearest clinic. Similar facilities exist in the Borough of Dagenham and in the Urban District of Thurrock.

Other services which are provided at clinics throughout the Administrative County generally include diphtheria immunizations for children in early infancy.

The Senior Dental Officer who, under the supervision of the County Medical Officer, is employed by the County Council for the organization and development of the School Dental Service, is also responsible for the organization and development of the dental

service for expectant mothers and nursing mothers and young children. He is assisted by the school dental officers and an ancillary staff of dental attendants and clerical officers.

Dental treatment is provided in combined treatment or other centres, or in other premises acquired or hired for the purpose. Facilities for dental X-ray examination are available in the County Council's hospitals and, by arrangement, in certain voluntary hospitals. The County Council provide dentures by arrangement with private dental workshops. The County Council's fully equipped dental trailer, which can be based on clinics or other suitable premises, is available for service in the rural areas.

Arrangements on similar lines exist generally in the other welfare authorities' areas, except in the Boroughs of Romford and Wanstead and Woodford and the Urban District of Clacton, where dental work for the mothers and children previously mentioned is undertaken by private dental practitioners in their own surgeries. This arrangement applies also, so far as mothers are concerned, in the Urban District of Thurrock, but so far as children under five are concerned, dental treatment is, by arrangement, provided by the County Council. The Council of the Borough of Walthamstow provide a dental workshop.

Provision for institutional confinements for expectant mothers in the County Council's area and for expectant mothers in some of the adjoining autonomous welfare authorities' areas is made in the County Council's hospitals at Wanstead, Romford, Chelmsford and at Black Notley, near Braintree, for tuberculous patients. The Councils of the Boroughs of Barking, Colchester, Ilford and Walthamstow respectively provide their own maternity homes. The County Council and other welfare authorities send patients to other local authority and voluntary hospitals and nursing homes within and without the Administrative County. Admissions are generally limited at present to women bearing a first baby, complicated cases, and cases in which home conditions are unsuitable for confinements. Cases of puerperal pyrexia are, by arrangement, sent to isolation hospitals both within and without the Administrative County.

The County Council and most of the other welfare authorities have arrangements whereby children not attending an elementary school who require operations for adenoids and enlarged tonsils can obtain the necessary hospital treatment at certain approved hospitals. All welfare authorities, by arrangement, send cases of ophthalmia neonatorum and pemphigus to infectious disease hospitals within and without the Administrative County.

In the County Council's welfare area special arrangements are made on the lines suggested in Circular 20/44, of 22nd March, 1944, for the supervision of premature infants. All infants weighing $5\frac{1}{2}$ lbs. or less at birth are kept under special observation by a health visitor. The County Council's part-time Consultant Pædiatrician is available to advise in regard to these infants. Whenever possible and necessary, the services of a home help are made available to assist the mother. Similar arrangements exist in the Boroughs of Barking, Dagenham, Harwich, Ilford, Romford, Leyton, Walthamstow and Wanstead and Woodford.

The Council of the Borough of Dagenham provide a day foster mother and day guardian service.

As indicated in Appendix A, the only residential nursery in the Administrative County is "Writtle Wick," near Chelmsford. Residential accommodation for infants

up to the age of three years is also available at five institutions and nine children's homes administered by the Social Welfare Committee of the Council.

A Mother and Baby Home established at "Ardmore," Buckhurst Hill, by the County Council makes provision for the unmarried mother and her child. Four welfare authorities, viz., the Councils of the Boroughs of Chelmsford, Dagenham, Ilford and Romford respectively, make use of the facilities provided at this Home.

The County Council and the Boroughs of Dagenham and Walthamstow and the Urban District of Thurrock have an arrangement with the Chelmsford Diocesan Moral Welfare Association for the provision of accommodation for unmarried mothers and their babies. The seven other welfare authorities make no provision in this respect.

The County Council also provide accommodation for the unmarried mother and her child in Social Welfare Institutions and there is a service for guaranteed payments to selected foster parents. The Council of the Borough of Dagenham has a scheme for providing assistance to unmarried mothers. Grants are also made by the County Council and the Council of the Borough of Walthamstow to the Diocesan Moral Welfare Association in support of the various shelters established by the Association. Accommodation for illegitimate children is also available at the "Writtle Wick" Residential Nursery.

Most authorities, including the County Council, have arrangements for the provision of medicaments and nutriments. Some authorities, including the County Council, provide maternity outfits and other similar articles, convalescent treatment, treatment of minor ailments, speech therapy and treatment for ringworm. At Clacton-on-Sea there is a Mothers' Aid Committee which, in necessitous cases, assists in the provision of dentures, nutriments and surgical items.

The County Council have, as welfare authority, appointed Health Visitors to act throughout their area as Child Protection Visitors under Part VII of the Public Health Act, 1936. Similar arrangements have been made by all the other welfare authorities in relation to their areas.

Other services provided by welfare authorities in the Administrative County include a Home and Domestic Help Service and, in certain areas, a skilled Home Nursing Service by arrangement with voluntary organizations. Lectures and health exhibitions are arranged from time to time and medical officers, health visitors and others give talks on various health and domestic subjects at Welfare Centres.

PART II.

DESCRIPTION OF THE SERVICE WHICH IT IS PROPOSED TO OPERATE ON THE APPOINTED DAY.

(A) *General Arrangements.*

(1) *Administrative Arrangements.*

The Care of Mothers and Young Children Service to be provided by the County Council (hereinafter referred to as "the Authority") will, subject to such directions as may be given by the Authority from time to time, be under the general control of the Health Committee of the Authority.

The Clerk of the Council is the Authority's Chief Administrative Officer, and, subject to the duties of the Clerk of the Council as such, the County Medical Officer will

be responsible to the Authority for the organization and operation of the service and will continue to be assisted centrally by the staff referred to in the second paragraph of Part I of these proposals. In addition to such staff, twenty-four whole-time medical officers or their equivalent will be employed by the Authority and it is hoped, with the consent of the Councils of the County Districts concerned, also to utilize the part-time services of at least ten Medical Officers of Health.

(2) *Particulars of joint arrangements with other Local Health Authorities.*

It is not considered necessary to enter into joint arrangements with other Local Health Authorities, at any rate for the time being.

(3) *Arrangements with Voluntary Organizations.*

It is proposed to endeavour to continue the arrangements with the following voluntary organizations :—

Plaistow Maternity Hospital and District Nurses' Home for the staffing in part, of ante-natal and minor ailment clinics in the Borough of Barking.

Walthamstow Child Welfare Society for the provision of weighing, ultra violet light and massage clinic facilities in the Society's own premises in the Borough of Walthamstow.

Chelmsford Diocesan Moral Welfare Association for the provision of Mother and Baby Homes and shelters for unmarried mothers.

(4) *Liaison with other Bodies.*

In consultation with the Regional Hospital Boards and the Executive Council for the area, the Authority's arrangements for the care of mothers and young children will be so designed as to ensure the closest integration of these services with the hospital and specialist services, especially so far as ante-natal clinics and the admission of women to maternity beds are concerned, and with the general medical services to be provided under Part IV of the Act, on the following lines :—

- (a) By reciprocal arrangements with the Regional Hospital Boards, those of the Authority's medical officers, present and future, who by experience and choice are best fitted to work in ante-natal and post-natal clinics, will, as far as circumstances permit, be assigned to that work and be attached to the obstetrical team jointly set up by the Boards and the Executive Council. Such officers will thus spend part of their time in midwifery work and in acquiring the necessary experience to enable them to enter full obstetrical practice, either as specialist obstetricians or as general practitioners or obstetricians. These selected officers, together with midwives employed by the Authority, will form the Authority's contribution to the staffing of the composite obstetrical teams.
- (b) Similarly, those of the Authority's medical officers, present and future, who are more interested and experienced in child welfare work, will gradually be transferred, and to such extent as circumstances permit, be allocated to the Authority's child welfare centres and, by arrangements with the Regional Hospital Boards, spend part of their time in an appropriate pædiatric department of children's hospital.
- (c) The Authority's policy of employing local general practitioners on a part-time basis at ante-natal, post-natal and child welfare clinics will be continued and expanded throughout the area.

(d) Close liaison will be maintained with the Regional Hospital Boards in regard to the maternity hospitals or units with which the respective ante-natal clinics are to be associated, and in relation to the arrangements to be made for the admission of maternity cases to such hospitals or units.

In so far as the Regional Hospital Boards are unable to provide the services of specialists required by the Authority's service on terms to be agreed, the Authority will continue, in so far as they may legally do so, their policy of contracting directly with individual consultants.

(B) *Particular arrangements which it is proposed to operate on the Appointed Day.*

(1) *Clinics.*

The table forming Appendix B to these proposals gives details of the clinics and sessions which, subject to such rationalization and expansion as circumstances or experience may prove to be practicable, necessary or desirable, will operate on the appointed day.

(2) *Care of Premature Infants.*

The existing schemes will be continued on the lines indicated in Circular 20/44, dated 22nd March, 1944, by, as may prove practicable, (i) all infants who weigh less than five and a half pounds at birth being kept under special observation by the Authority's health visiting and midwifery staff; the loan, where necessary, by the Authority of special equipment, as for example, draught-proof cots, suitable clothing, hot water bottles, electric blanket pads, special feeding bottles, thermometers, and mucus catheters, for use in nursing the infant at home; (iii) the provision, in co-operation with the Regional Hospital Boards, where necessary, of expressed breast milk; (iv) the provision, also in co-operation with the Regional Hospital Boards, of the services of a paediatrician; (v) the provision, by arrangement with the Regional Hospital Boards, of such institutional care as may be required; the provision of (a) special ambulance facilities in connection therewith; (b) special follow-up arrangements immediately the infant is discharged from hospital.

(3) *Dental Care.*

(i) (a) Steps will be taken to expand as substantially as is practicable the arrangements for dental treatment of expectant and nursing mothers so that in addition to the existing arrangements which will be continued as a basis, facilities will be afforded, in so far as the staff available on the appointed day will permit, throughout the Administrative County whereby every expectant mother, following her first visit to an ante-natal clinic, will be examined by a dentist and such treatment as is necessary, including dentures, will be provided.

(b) Subject to the necessary staff being available, it is proposed to set up a scheme for the periodical dental examination of young children, including those in Day Nurseries, up to the time they come under the care of the School Dental Service, and the provision of such treatment as may be necessary.

(ii) The Senior Dental Officer, already appointed for the organization and development of the School Dental Service (subject to co-ordination by the County Medical Officer) will be responsible to the County Medical Officer for the new service.

In addition to the Senior Dental Officer, the services of dental officers to the equivalent of three full-time officers, will, if still available, be utilized on and from the

appointed day, together with the appropriate ancillary and clerical staff. In addition further staff, equivalent to thirty-two full-time dentists, together with the necessary ancillary and clerical staff, will, as soon as may prove to be practicable, be appointed to give effect to an extended service.

(iii) The existing number of approximately thirty sessions a week will form the basis of the new service. Appendix "C" to these proposals shows the number of sessions which it is estimated will be required and which will be provided as and when the necessary staff can be obtained.

(iv) The existing arrangements whereby the provision and repair of dentures is effected through private firms of dental mechanics, and in the case of the Borough of Walthamstow, through the dental workshop which has been established by the Council of that Borough, will be continued on the appointed day.

(v) In co-operation with the Regional Hospital Boards the existing arrangements for the provision of X-ray facilities will be continued.

(4) *Supply of Welfare Foods.*

Existing schemes whereby medicaments and nutriments are issued will be continued. The Authority propose to continue to co-operate with the Ministry of Food by distributing vitamins.

(5) *Provision of Maternity Outfits.*

Maternity outfits will be made available to expectant mothers upon application.

(6) *Nursery Provision.*

The following table shows the existing day and residential nurseries which will continue to be provided on the appointed day and until otherwise decided :—

County District.	Day Nurseries.		Residential Nurseries.	
	Number	No. of places for children.	Number.	No. of places for children.
County Council Welfare Area—				
Hornchurch U. ..	4	145	..	—
Witham U.	1	20	..	—
Waltham Holy Cross U.	1	40	..	—
Saffron Walden B. ..	1	36	..	—
Chingford B.	2	102	..	—
Barking B.	3	168	..	—
Chelmsford B.	1	40	..	1
Colchester B.	2	100	..	—
Dagenham B.	3	168	..	—
Ilford B.	4	190	..	—
Leyton B.	2	100	..	—
Romford B.	3	130	..	—
Thurrock U.D.	3	150	..	—
Walthamstow B.	2	100	..	—
Total, Administrative County	32	1,489	..	1
				12

In addition to the nurseries in the above table, it is anticipated that a 50-place day nursery in course of construction will be in operation before the appointed day.

It is proposed to continue to provide meals at day nurseries.

The residential nursery shown in the foregoing table, provided by the Authority at "Writtle Wick," Chignal Road, Chelmsford, will continue to provide accommodation for children aged 0 to 5, primarily short-stay cases or illegitimate children. It is intended that as from the appointed day the nursery shall be provided in discharge of the duty placed on the County Council by the *Children Act, 1948*, and shall be administered in the manner provided in that Act and the Regulations made thereunder.

By arrangement with the Regional Hospital Boards the present facilities at such of the Authority's Social Welfare Institutions as are transferred to them will be continued, as will also the existing facilities at such institutions or children's homes as remain under the control of the Authority.

Arrangements for the provision of a day foster mother and daily guardian service in the Borough of Dagenham will be continued and extended to other county districts as the necessity and opportunity arises.

(7) *Care of Unmarried Mothers and their Children.*

The hostel for mothers and babies at "Ardmore," Buckhurst Hill, providing accommodation for eighteen mothers and their babies, will continue to be available for the reception of unmarried mothers and their children. As indicated in paragraph (6) above, accommodation will also be available for illegitimate children apart from their mothers at the residential nursery established at "Writtle Wick," Chelmsford. Arrangements with the Chelmsford Diocesan Moral Welfare Association for the provision of accommodation at mother and baby homes and at shelters will be continued. By arrangement with the Regional Hospital Boards, facilities at present provided in such of the Authority's Social Welfare Institutions as are transferred to the Board will be continued.

(8) *General.*

The special arrangements for the care of mothers and young children made by certain existing welfare authorities in the Administrative County including those already described in Part I of these proposals, will, in so far as they are appropriate to the Council's duty under Section 22 and are not functions which under the Act will devolve upon the hospital or specialist services, be continued, and if the Authority consider it is desirable to do so, will be extended as may, in the opinion of the Authority, prove to be practicable.

PART III.

DEVELOPMENT PLAN.

On the appointed day the whole of the area will not be adequately covered by reason of the shortage of appropriate staff and premises, and the services will be developed in the following stages :—

Before 1st April, 1949.

(i) As officers become available, further medical staff (including dental staff), with ancillary and clerical staff, will be appointed, either directly by the

Authority or jointly with the Regional Hospital Boards, with a view to ensuring an efficient and comprehensive clinic service. At dental clinics particular attention will be given to conservative treatment.

(ii) As opportunity offers, clinic services will be expanded and more satisfactory premises will be provided.

(iii) As far as practicable the arrangements for the care of premature infants will be developed and extended to cover the Administrative County.

(iv) A scheme for the provision of registered daily guardians and creches in Child Welfare Centres will be inaugurated.

(v) Arrangements will be inaugurated for the establishment of dental workshops for the provision and repair of dentures.

Before 1st April, 1950.

Additional day and residential nurseries will be provided to cater, as far as practicable, for all demands on the service. Arrangements will be made either by the County Council or through voluntary organizations as may, in the circumstances and in the light of experience, prove to be necessary or desirable for the provision of additional day nurseries to cater so far as practicable for all demands on the service.

Before and after 1st April, 1951.

The Authority will continue to endeavour (a) to complete the extension of the arrangements for dental treatment by the appointment of additional dental surgeons and dental attendants and/or nurses, and (b) generally to provide a complete service under Section 22 of the Act.

APPENDIX "A"

WELFARE AUTHORITY	A ANTE-NATAL CLINICS			B. POST-NATAL CLINICS		C. WHERE ARRANGEMENTS MADE WITH GENERAL PRACTITIONERS		D. CHILD WELFARE CLINICS		E. DAY NURSERIES		F. RESIDENTIAL NURSERIES		G. MOTHER AND BABY HOMES				H. *DENTAL TREATMENT GIVEN IN 1946	
	(i)	(ii)	(iii)	(i)	(ii)	(i)	(ii)	(i)	(ii)	(i)	(ii)	(i)	(ii)	(i)	(ii)	(iii)	(i)	(ii)	
	No. of clinic premises	No. of expectant mothers 1946	No. of sessions held weekly	No. of clinics	No. of sessions held weekly	No. of women ante- natally examined	No. of women post- natally examined	No. of clinics	No. of sessions held weekly	No.	No. of places for children	No.	No. of places for children	No.	Accommoda- tion	(a) mothers	(b) babies	No. of expectant or nursing mothers	No. of children under five
Essex County Council	39	6,711	29½	10	3½	—	—	160	72½	9	343	1	24	1	18	18	—	816	206
Barking B. . .	6	2,457	15½	1	2	—	—	5	15	3	168	—	—	—	—	—	—	1,677	244
Chelmsford B. . .	2	479	2	—	—	—	—	2	4	1	40	—	—	—	—	—	—	509	526
Clacton-on-Sea U.D.	1	1,170	1	—	—	—	—	2	3½	—	—	—	—	—	—	—	—	No inf ormation	—
Colchester B. . .	1	712	3	—	—	—	—	6	6	2	100	—	—	—	—	—	—	No inf ormation	—
Dagenham B. . .	5	2,510	13½	—	—	—	—	6	9	3	168	—	—	—	—	—	—	177	88
Harwich B. . .	1	93	½	—	—	—	—	2	2	—	—	—	—	—	—	—	—	5	3
Ilford B. . .	2	1,401	11	2	1½	897	—	10	14	4	190	—	—	—	—	—	—	557	218
Leyton B. . .	2	801	3	1	½	—	—	2	6	2	100	—	—	—	—	—	—	172	188
Romford B. . .	2	1,470	4½	—	—	—	—	5	7	3	130	—	—	—	—	—	—	39	9
Thurrock U.D. . .	6	1,359	8	1	½	—	—	13	16½	3	150	—	—	—	—	—	—	32	19
Walthamstow B. . .	2	2,283	17	1	1	—	—	4	8	2	100	—	—	—	—	—	—	70	130
Wanstead and Woodford B.	1	571	3	—	—	—	—	6	6	—	—	—	—	—	—	—	—	16	—
Total Administrative County	70	22,017	111½	16	8½	897	—	223	169½	22	1,489	1	24	1	18	18	—	4,070	1,631

*DENTAL TREATMENT.—Radiographs are undertaken in connection with nearly all the schemes of the larger Authorities at Voluntary or other Hospitals as required. Conservative treatment consisting of fillings, scalings and gum treatment is general. The larger Welfare Authorities provide and arrange for the repair of dentures; the Borough of Walthamstow has its own dental workshop.

APPENDIX "B"

COUNTY DISTRICT	(a) ANTE-NATAL CLINICS		(b) POST-NATAL CLINICS		(c) INFANT WELFARE CENTRES	
	<i>Number</i>	<i>No. of sessions to be held each week</i>	<i>Number</i>	<i>No. of sessions to be held each week</i>	<i>Number</i>	<i>No. of sessions to be held each week</i>
COUNTY COUNCIL WELFARE AREA—						
Benfleet U.	3	1 $\frac{3}{4}$	—	—	3	1 $\frac{1}{2}$
*Billericay U.	4	4	1	$\frac{1}{4}$	9 (1)	5 $\frac{1}{2}$ ($\frac{1}{4}$)
Braintree and Bocking U.	1	$\frac{1}{2}$	1	$\frac{1}{2}$	2	1 $\frac{1}{2}$
Brentwood U.	1	2	1	$\frac{1}{2}$	5	2 $\frac{1}{2}$
Brightlingsea U.	—	—	—	—	1	$\frac{1}{2}$
Burnham-on-Crouch U.	1	$\frac{1}{4}$	—	—	1	1
Canvey Island U.	1	1	—	—	1	$\frac{1}{2}$
*Chigwell U.	2	2	1	$\frac{1}{4}$	5 (2)	4 (1)
Chingford B.	2	3 $\frac{1}{4}$	1	$\frac{1}{4}$	4	5 $\frac{3}{4}$
Epping U.	—	—	—	—	1	1
Frinton and Walton U.	—	—	—	—	1	$\frac{1}{4}$
Halstead U.	—	—	—	—	1	1
*Hornchurch U.	5 (1)	7 ($\frac{1}{2}$)	1	$\frac{1}{2}$	6 (1)	7 ($\frac{1}{2}$)
Maldon B.	1	1	1	$\frac{1}{4}$	1	1
Rayleigh U.	1	1	—	—	2	1
Saffron Walden B.	1	$\frac{1}{2}$	—	—	1	1
Waltham Holy Cross U.	1	$\frac{1}{2}$	—	—	1	1
West Mersea U.	—	—	—	—	1	$\frac{1}{4}$
Witham U.	1	$\frac{1}{4}$	—	—	2	1
Wivenhoe U.	—	—	—	—	1	$\frac{1}{2}$
Braintree R.	1	$\frac{1}{4}$	—	—	5	2
Chelmsford R.	2	1 $\frac{1}{4}$	1	$\frac{1}{2}$	17	5 $\frac{1}{2}$
Dunmow R.	2	$\frac{1}{2}$	1	$\frac{1}{4}$	12	3 $\frac{1}{4}$
*Epping R.	1	$\frac{1}{2}$	—	—	8 (1)	2 $\frac{1}{4}$ ($\frac{1}{4}$)
*Halstead R.	—	—	—	—	6 (1)	2 $\frac{1}{2}$ ($\frac{1}{4}$)
Lexden and Winstree R.	—	—	1	$\frac{1}{2}$	11	3 $\frac{1}{2}$
Maldon R.	3	$\frac{3}{4}$	—	—	13	4 $\frac{1}{4}$
Ongar R.	1	$\frac{1}{4}$	—	—	8	2 $\frac{1}{2}$
Rochford R.	3	1	—	—	6	2 $\frac{1}{4}$
Saffron Walden R.	—	—	—	—	13	3 $\frac{1}{2}$
Tendring R.	1	$\frac{1}{4}$	—	—	12	4
BARKING B.	6	15 $\frac{1}{2}$	1	2	5	15
*CHELMSFORD B.	2	2	—	—	2	4
CLACTON-ON-SEA U.	1	1	— (1)	— ($\frac{1}{4}$)	2 (1)	3 $\frac{1}{2}$ ($\frac{1}{2}$)
COLCHESTER B.	1	3	—	—	6	6
*DAGENHAM B.	5	13 $\frac{1}{4}$	—	—	6	9 (5)
HARWICH B.	1	$\frac{1}{2}$	—	—	2	2
ILFORD B.	2	11	2	1 $\frac{1}{4}$	10	14
LEYTON B.	2	3	1	$\frac{1}{4}$	2	6
*ROMFORD B.	2	4 $\frac{1}{4}$ (2)	— (1)	— (1)	5 (1)	7 (2)
THURROCK U.	6	8	1	$\frac{1}{2}$	13	16 $\frac{1}{2}$
*†WALTHAMSTOW B.	2	17	1	1	4 (1)	8 (1)
WANSTEAD AND WOODFORD B.	1	3	—	—	6	6
TOTAL ADMINISTRATIVE COUNTY	70 (1)	111 $\frac{1}{4}$ (2 $\frac{1}{2}$)	16 (2)	8 $\frac{3}{4}$ (1 $\frac{1}{4}$)	223 (9)	170 $\frac{1}{4}$ (10 $\frac{3}{4}$)

*Figures in brackets show clinics or sessions additional to those now held or existing which it is anticipated will be in operation on appointed day.

†Including sessions held at premises of Walthamstow Child Welfare Society.

APPENDIX "C"

<i>Location and number of Dental Centres</i>		<i>Areas to be Served</i>	<i>Total number of Weekly Sessions to be held</i>
Barking	(4)	Barking M.B.	18
Benfleet	(1)	Benfleet U.D.	4
Billericay	(1)	{ Billericay U.D.	9
Laindon	(1)		
Vange	(1)		
Pitsea	(1)		
Braintree	(1)	{ Braintree and Bocking U.D. .. } { Braintree R.D. } { Witham U.D... }	7½
Brentwood	(1)	Brentwood U.D.	6
Burnham	(1)	Burnham-on-Crouch U.D.	½
Canvey Island	(1)	Canvey Island U.D.	2
Chelmsford	(2)	{ Chelmsford M.B. } { Chelmsford R.D. }	16
Chingford	(2)	Chingford M.B.	10
Buckhurst Hill	(1)	Chigwell U.D.	6
Clacton	(1)	{ Clacton U.D. } { Frinton and Walton U.D. .. }	5
Colchester	(2)	{ Colchester M.B. } { Brightlinsgea U.D. } { Lexden and Winstree R.D. .. } { Wivenhoe U.D. } { West Mersea U.D. }	16½
Dunmow	(1)	Dunmow R.D.	4
Dagenham	(3)	Dagenham M.B.	27
Epping	(1)	{ Epping U.D. } { Epping R.D. }	4
Halstead	(1)	{ Halstead U.D. } { Halstead R.D. }	4
Harwich	(1)	Harwich M.B.	3
Hornchurch	(2)	{ Hornchurch U.D.	23
Rainham	(1)		
Ilford	(2)	Ilford M.B.	38
Leyton	(3)	Leyton M.B.	23
Maldon	(1)	{ Maldon M.B. } { Maldon R.D. }	5
Ongar	(1)	Ongar R.D.	3½
Rayleigh	(1)	Rayleigh U.D.	2
Romford	(2)	Romford M.B.	16
Rochford	(1)	Rochford R.D.	4
Saffron Walden	(1)	{ Saffron Walden M.B. } { Saffron Walden R.D. }	4
Tilbury	(1)	{ Thurrock U.D.	16
Grays	(1)		
Waltham Abbey	(1)	Waltham Holy Cross U.D. ..	1
Walthamstow	(1)	Walthamstow M.B.	26
South Woodford	(1)	Wanstead and Woodford M.B. ..	13
Weeley	(1)	Tendring R.D.	5

Total number of Sessions in the Administrative County ..

322

SECTION 23.

Proposed Arrangements for Midwives Service.

PART I.

STATISTICAL DATA.

Total number of domiciliary births in the Authority's area :

(a) 1945—9,602.

(b) 1946—13,258.

EXISTING SERVICE.

The County Council are the Local Supervising Authority under the Midwives Acts 1902–1936, for the areas of thirty-seven out of the forty-three County Districts in the Administrative County. In four of the thirty-seven County Districts for which the County Council are the Local Supervising Authority, namely, the Boroughs of Chelmsford, Romford and Wanstead and Woodford, and the Urban District of Thurrock, the Councils of the Boroughs and the Urban District Council respectively, are authorized to employ midwives.

The Boroughs of Barking, Colchester, Dagenham, Ilford, Leyton and Walthamstow are the Local Supervising Authorities for their respective areas.

The County Medical Officer is responsible to the County Council for the organization and operation of the service provided by the County Council as Local Supervising Authority under the Midwives Acts. He is assisted by the Deputy County Medical Officer and a Senior Medical Officer. Arrangements on similar lines operate in the areas of the other Local Supervising Authorities.

The medical supervision of midwives in the area of each Local Supervising Authority is undertaken by the authority's Medical Officer of Health and one of his senior medical assistants. Non-medical supervision in the areas of the Local Supervising Authorities other than the County Council, is undertaken, as a part-time duty, by officers performing also other appropriate duties. The County Council employ a whole-time non-medical supervisor of midwives and the superintendent health visitor employed by the County Council devotes a part of her time to the supervision of midwives. The necessary clerical staff is provided.

Subject to what is stated in the next paragraph, the existing midwifery service in the Administrative County is provided by the direct employment of midwives by Local Supervising Authorities and, so far as the County Council are concerned, in certain areas by the Welfare Authorities on their behalf; by local authorities as part of their hospital service and by midwives practising privately in private nursing homes or otherwise.

Part of the service is provided through the agency of the Essex County Nursing Association, its affiliated district nursing associations and other local district nursing associations. The non-medical supervision on behalf of the County Council of midwives employed by the Essex County Nursing Association and its affiliated

associations forms part of the duties of the County Superintendent and three assistants employed by the Essex County Nursing Association. The Association also employs appropriate clerical staff.

The following table shows the number of midwives working in the Administrative County and indicates (i) the number directly employed by the respective local authorities; and (ii) the number provided through the agency of other bodies or practising privately :—

	<i>Domiciliary Midwives employed by Local Authorities.</i>				<i>Provided by D.N.A's and other organizations. Total No.</i>			<i>Practising in Hospitals.</i>		<i>Practising privately : Domiciliary and in Nursing Homes.</i>		<i>Total whole-time.</i>	
ESSEX COUNTY COUNCIL AREA.													
Essex County Council	..	18	}	167	..	80	..	41	..	55	..	222	
Chelmsford B.	5											
Romford B.	8											
Thurrock U.D.	10											
Wanstead and Woodford B.	5											
OTHER AREAS.													
Barking B.	1	..	6	..	5½	..	9	..	—	..	15½	
Colchester B.	—	..	3	..	3	..	28	..	10	..	41	
Dagenham B.	10	..	9	..	9	..	—	..	2	..	21	
Ilford B.	15	..	3	..	3	..	17	..	9	..	44	
Leyton B.	4	..	6	..	6	..	—	..	—	..	10	
Walthamstow B.	6	..	7	..	3½	..	20	..	5	..	34½	
Total Administrative County	..	82	..	201	..	110	..	115*	..	81	..	388	

*It is anticipated that these midwives will be transferred to the service of the Regional Hospital Board on the appointed day.

Facilities are at present provided for the training of midwives at the Oldchurch County Hospital, Romford, which is owned by the County Council; at the Maternity Homes of the Councils of the Boroughs of Colchester, Ilford and Walthamstow respectively, and at the Essex County Nursing Association's Training Homes at Leytonstone and Dagenham.

Training in the administration of gas and air analgesia is carried out at each of the Training Homes before referred to and apparatus is available in the areas of all the Local Supervising Authorities.

Every effort is made to ensure that Local Authority and District Nurse-Midwives are satisfactorily housed conveniently near to their districts on the lines indicated in Ministry of Health Circular 98/46.

The majority of the midwives employed by the local authorities and the voluntary associations are provided with motor cars for their use and others are provided with bicycles. Where neither a motor car nor a bicycle is provided, a midwife is paid either a mileage allowance in respect of the use of her own car or bicycle, or the cost of travelling by public service vehicles is reimbursed.

PART II.

DESCRIPTION OF THE SERVICE WHICH WILL OPERATE ON THE APPOINTED DAY.

General Administrative Arrangements.

1. It is proposed that the County Council (hereinafter referred to as "the Authority") shall provide directly a domiciliary midwifery service for the whole of the Administrative County, except that, if the Authority find it expedient to make arrangements, as a transitional measure, with a voluntary organization to employ

midwives who will be available in the Authority's area for attendance on women in their homes as midwives or maternity nurses during child birth and the lying-in period, the Authority will endeavour to make such arrangements, for the time being. The service, subject to such directions as may be given from time to time by the Authority, will be under the general control of the Health Committee of the Authority.

The Clerk of the Council is the Authority's Chief Administrative Officer, and subject to the duties of the Clerk of the Council as such, the County Medical Officer will be responsible to the Authority for the organization and operation of the Service insofar as it is provided by midwives in the direct employment of the Authority, and the County Medical Officer will be assisted in carrying out his duties by the Deputy County Medical Officer. Such other professional, administrative, technical and clerical staff as may prove to be necessary will be employed by the Authority and, where the Authority consider it to be appropriate, the part-time services of officers of the Councils of County Districts or Regional Hospital Boards will be utilized where the Council of the County District or the Regional Hospital Board concerned, as the case may be, agree.

It is proposed that midwives shall be allocated to administrative sub-divisions of the area of the Authority. It is intended that arrangements will be made with a view to co-ordinating the Midwives Service with the Home Nursing, Health Visiting and Domestic Help Services.

2. Suitable existing midwives practising in the area will be given an opportunity to transfer to the service of the Authority in a whole-time or part-time capacity if they wish to do so, and additional midwives will be employed as opportunity offers within the standards set out in Part III below.

Arrangements for Supervision of Midwives.

Supervision, as required by the Central Midwives Board, of practising domiciliary midwives and those employed in institutions not controlled by the Regional Hospital Boards, will continue as under the existing arrangements, and, as far as circumstances permit, will be extended where necessary. Arrangements will also be made with the Regional Hospital Boards with regard to the supervision of midwives employed in hospitals under their control.

The County Medical Officer will undertake medical supervision throughout the area, and will be assisted by members of his medical staff as necessary. In addition, where the Authority consider it to be appropriate, the part-time services of medical officers of the Councils of County Districts will be utilized for the purpose where the Council of the County District concerned agree.

Non-medical supervision will continue to be undertaken by existing recognized non-medical supervisors, including those at present acting in a part-time capacity.

It is proposed that these should include—

- (a) those employed by the Authority ;
- (b) those employed by the Essex County Nursing Association who now act for the Authority ; and

- (c) those at present acting as non-medical supervisors, who at present act in a part-time capacity and who are not engaged in the actual practice of midwifery, in the areas of the six County Districts which are at present local supervising authorities.

All non-medical supervisors of midwives will be required to undertake combined duties, if necessary, in connection with the services to be provided under Sections 22, 24 and 25 of the National Health Service Act, 1946.

Transport.

As many midwives as possible will be provided with motor transport either by the provision of a motor car owned by the Authority or by granting an allowance in respect of the use of a motor car owned by the midwife.

In the initial stages when neither a motor car is provided nor a motor car allowance is paid, a bicycle will be provided or an allowance will be made for the use of a bicycle.

Analgesia.

It is proposed to endeavour to make arrangements with the Regional Hospital Board whereby training in the administration of analgesia will be provided at the Oldchurch County Hospital, Romford; at the Maternity Hospitals at Colchester, Ilford and Walthamstow, and at such other hospitals as may be agreed with the Regional Hospital Board concerned, or other governing body, from time to time for all midwives needing such training. It is proposed to arrange for the facilities which already exist at the training schools at Dagenham and Leytonstone, at present owned by the Essex County Nursing Association, to be continued and, if practicable, to be extended; and advantage will be taken of such other training facilities as may become available.

Training of Midwives.

It is proposed to arrange for the training of midwives now carried on in the County Nurses' Training Homes at Beechcroft, Leytonstone and York House, Dagenham, to be continued. It is also proposed to negotiate with the Regional Hospital Boards with a view to the training of midwives at hospitals, including the Oldchurch County Hospital, Romford, and the Maternity Hospitals at Colchester, Ilford and Walthamstow, and to negotiate in regard thereto insofar as it may be necessary with any Midwifery Training Schools of Hospitals which are not transferred to the Minister.

PART III.

DEVELOPMENT PLAN.

The main deficiencies in the service on the appointed day will relate to the number of midwives available and the provision of transport and houses for midwives.

The provision of motor transport will be proceeded with as quickly as the supply position will allow until all midwives in the employment of the Authority are provided with a motor car.

Where midwives are not satisfactorily housed, the Authority will continue to endeavour to ensure that accommodation is provided as soon as practicable (a) by

arrangement with Housing Authorities in the Administrative County; or (b) by the submission of building proposals to the Minister in any case of particular urgency which cannot be met by the Housing Authority.

It is proposed that the service should be maintained on the basis of one midwife or her equivalent for each sixty-six domiciliary births in a year in urban areas and one midwife or her equivalent for each forty domiciliary births in a year in rural areas, and every endeavour will be made to recruit midwives to enable this to be done.

SECTION 24.

Proposed Arrangements for Health Visiting.

PART I.

STATISTICAL DATA.

- (1) Area in square miles—1,505.7.
- (2) Total mid-1946 population—1,436,450.
- (3) Number of births 1946—29,639.

EXISTING SERVICE.

The Health Visiting Service in the Administrative County is provided by the County Council as Welfare Authority for thirty-one County Districts and the twelve autonomous Welfare Authorities in the Administrative County (the Councils of the Boroughs of Barking, Chelmsford, Colchester, Dagenham, Harwich, Ilford, Leyton, Romford, Walthamstow, Wanstead and Woodford, and the Urban District Councils of Clacton-on-Sea and Thurrock respectively).

The County Medical Officer is responsible to the County Council for the organization and operation of the service afforded by them. He is assisted by the Deputy County Medical Officer and a full-time Senior Medical Officer. A Superintendent Health Visitor and a Deputy are also employed, together with the necessary administrative and clerical staff. The arrangements in the Boroughs of Barking, Dagenham and Ilford are on similar lines.

(i) *Service provided by County Council and Local Authorities.*

In the area of the County Council and also in the areas of the Boroughs of Barking, Chelmsford, Harwich, Ilford, and Walthamstow, respectively, combined appointments of Health Visitor and School Nurse are made, and the Council of the Borough of Leyton have accepted this principle. Most Health Visitors appointed by the County Council also undertake tuberculosis visiting, but in some of the autonomous welfare areas the County Council have appointed visitors who undertake only the visiting of persons suffering from tuberculosis. The Councils of the Boroughs of Colchester, Dagenham, Leyton, Romford and Wanstead and Woodford, respectively, and the Urban District Council of Clacton-on-Sea, employ whole-time health visitors exclusively for maternity and child welfare work. In the areas where combined appointments are made each

visitor devotes, in general, between forty and fifty per cent. of her time to the care of expectant and nursing mothers and to children under five years of age.

Each Health Visitor is allocated to a district of a Welfare Authority's area and attends the clinics held in that district. Where a Health Visitor also acts as School Nurse she makes visits to the schools in her district, thus ensuring continuity of supervision of children up to school leaving age. In addition to routine visiting, special visits are made to homes as and when requests are received from parents, general practitioners, medical officers of health or voluntary organizations and also during and after infectious illness.

The Health Visitors employed by the County Council undertake educational work at mothers' clubs and similar organizations and amongst adolescent girls, and maintain a close liaison with Women's Institutes and the Women's Voluntary Services.

In all areas Health Visitors also act as Child Protection Visitors.

When it is considered that it is necessary for a Health Visitor to use a car, one is provided or alternatively an allowance is granted for the use of a private car. When neither a car is provided nor a car allowance paid, a bicycle is provided or an allowance is made for the use of a bicycle, or alternatively the cost of travelling by public service vehicles is reimbursed.

(ii) *Service provided through the agency of other bodies.*

One Welfare Authority, the Walthamstow Borough Council, at present use the services of one Health Visitor who is employed by the Walthamstow Child Welfare Society, a voluntary organization.

(iii) *Number of Health Visitors employed.*

The following table shows the numbers of full-time and part-time Health Visitors, the number holding the combined appointment of Health Visitor and School Nurse (including the Superintendent Health Visitor and Deputy employed by the County Council and the Superintendent Health Visitors employed by the Councils of the Boroughs of Barking, Dagenham, Ilford and Walthamstow respectively), and the whole-time equivalent of the number of part-time visitors who undertake tuberculosis visiting, who are at present directly employed by the Welfare Authorities in the Administrative County :—

WELFARE AUTHORITY.	HEALTH VISITORS.			COMBINED HEALTH VISITOR/SCHOOL NURSE.			TUBERCULOSIS VISITORS.		
	Full-time.	Part-time.		Full-time.	Part-time.		Whole-time		or
		Actual.	Equivalent of whole-time.	Actual.	Equivalent of whole-time.	Actual.	Equivalent of whole-time.	equivalent.	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	
Essex County Council	..	—	..	53	.. 23.4	.. 1	.. .75	..	26.4
Barking B.	..	—	..	10	.. 5	.. —	.. —	..	—
Chelmsford B.	..	—	..	4	.. 2	.. —	.. —	..	—
Clacton U.D.	..	1	.. 1	—	.. —	.. —	.. —	..	—
Colchester B.	..	3	.. —	—	.. —	.. —	.. —	..	—
Dagenham B.	..	10	.. —	—	.. —	.. —	.. —	..	—
Harwich B.	..	—	..	2	.. 1	.. —	.. —	..	—
Ilford B.	..	—	..	7	.. 3.5	.. —	.. —	..	—
Leyton B.	..	6	.. —	—	.. —	.. —	.. —	..	—
Romford B.	..	2	.. 1	—	.. —	.. —	.. —	..	—
Thurrock U.D.	..	—	.. 7	—	.. —	.. —	.. —	..	—
Walthamstow B.	..	3	.. —	—	.. —	.. 9	.. 8	..	—
Wanstead and Woodford B.	..	4	.. —	—	.. —	.. —	.. —	..	—
Totals	.. 29	.. 9	.. 4.7	.. 76	.. 34.9	.. 10	.. 8.75	..	26.4

The total of the figures shown in columns 1, 3, 5, 7 and 8 is equivalent to approximately 104 Health Visitors.

The County Council has a training scheme for Health Visitors. Practical training can be given to eight students at a time in the County welfare area and theoretical work is provided at the Battersea Polytechnic.

PART II.

DESCRIPTION OF THE SERVICE WHICH WILL OPERATE ON THE APPOINTED DAY.

General Administrative Arrangements.

1. The Health Visiting Service to be provided by the County Council (hereinafter referred to as "the Authority") will, subject to such directions as may be given by the Authority from time to time, be under the general control of the Health Committee of the Authority.

The Clerk of the Council is the Authority's Chief Administrative Officer, and, subject to the duties of the Clerk of the Council as such, the County Medical Officer will be responsible to the Authority for the organization and operation of the service, and the County Medical Officer will be assisted in carrying out his duties by the Deputy County Medical Officer. Such other professional, administrative, technical and clerical staff as may prove to be necessary will be employed by the Authority, and in cases in which the Authority consider it to be appropriate, the part-time services of officers of the Councils of County Districts will be utilized where the Council of the County District concerned, agree.

It is proposed that Health Visitors, who will, as from the appointed day, be concerned with the health of the household as a whole, shall be allocated to administrative sub-divisions of the area of the Authority and that they will operate in the district to which they are assigned from existing clinics or from health centres to be established in pursuance of Section 21 of the National Health Service Act, 1946 (hereinafter referred to as "the Act").

It is intended that arrangements will be made with a view to co-ordinating the Health Visiting Service with the Midwifery, Home Nursing and Domestic Help Services and with the services providing residential and day nursery accommodation.

2. As opportunity arises it is proposed to augment the staff of full-time and part-time Health Visitors employed by the Authority until there is one Health Visitor or her equivalent for every 4,000 of the population of the Administrative County, but it is not anticipated that it will prove practicable to increase by the appointed day the number of Health Visitors stated in the table in Part I of these Proposals.

The Mental Welfare Visitors referred to in the Proposals submitted by the Authority in relation to the Mental Health Services will assist in the Health Visiting Service, in so far as the welfare of mental patients is concerned.

3. It is not intended to make arrangements with voluntary organizations for the provision of a Health Visiting Service and before the appointed day steps will be taken to terminate the arrangement with the Walthamstow Child Welfare Society.

4. It is not considered necessary, at this stage, to enter into joint arrangements with other Local Health Authorities.

Transport.

It is proposed that in rural and semi-rural areas the existing arrangements for the provision of motor cars or the granting of allowances in respect of the use of a car, as

may be appropriate, will be continued and extended. The sitting case cars provided under the Proposals submitted to the Minister for the provision of an ambulance service in pursuance of Section 27 of the Act will, when not in use for their primary purpose, be available for use by Health Visitors. In the initial stages when neither a motor car is provided nor a motor car allowance is paid, a bicycle will be provided or an allowance will be made for the use of a bicycle.

PART III.

DEVELOPMENT PLAN.

It is estimated that, taking into account the additional work to be undertaken by Health Visitors as from the appointed day, there will be a deficiency of approximately 260 Health Visitors on that date.

Transport for Health Visitors will also be deficient on the appointed day but it is impracticable to ascertain the extent of the deficiency.

After the appointed day, the Authority will continue their endeavours to bring the number of Health Visitors employed up to the standard of one visitor for each 4,000 of the population of the Administrative County.

The training scheme for Health Visitors within the area of the Authority will also be expanded.

As supplies become more readily available, motor cars will be provided for Health Visitors in all cases where it will add to the efficiency of the service.

SECTION 25.

Proposed Arrangements for Home Nursing.

PART I.

1. Area in square miles of Local Health Authority's area—1,505.7.
2. Total mid-1946 population—1,436,450.

PART II.

DESCRIPTION OF THE SERVICE WHICH IT IS PROPOSED TO OPERATE ON THE APPOINTED DAY.

General Administrative Arrangements.

It is proposed that home nursing services provided in the Administrative County should be directly controlled and administered by the County Council (hereinafter referred to as "the Authority"), except that if the Authority find it expedient to make arrangements, as a transitional measure, with a voluntary organization to employ nurses for nursing persons in their own homes, the Authority will endeavour to make such arrangements for the time being.

The service will, subject to such directions as may be given from time to time by the Authority, be under the general control of the Health Committee.

The Clerk of the Council is the Authority's Chief Administrative Officer, and subject to the duties of the Clerk of the Council as such, the County Medical Officer will be responsible to the Authority for the organization and operation of the service in so far as it is provided by nurses in the direct employment of the Authority, and the County Medical Officer will be assisted in carrying out his duties by the Deputy County Medical Officer and a Senior Medical Officer. Such other administrative, professional, technical and clerical staff as may prove to be necessary will be employed by the Authority (or by the voluntary organization in the event of arrangements under Section 25, being made, as a transitional measure, with any such organization) and, where the Authority consider it to be appropriate, the part-time services of officers of the Councils of County Districts will be utilized where the Council of the County District concerned agree.

Under the general direction of the County Medical Officer, a Superintendent Nursing Officer to be appointed to his staff on or before the appointed day, if practicable, and who will be provided with a Deputy, will supervise, *inter alia*, the service.

The Superintendent Nursing Officer and her Deputy will, in addition to their duties in connection with this service, be required to undertake duties in connection with the services to be provided under Sections 22, 23 and 24 of the National Health Service Act, 1946 (hereinafter referred to as "the Act").

It is intended that the night service arrangements whereby nurses, as far as practicable, attend emergency cases at night should be continued.

2. It is proposed to endeavour to secure by arrangement the transfer to the service of the Authority of the nursing staff of the voluntary organizations. The present staff of such organizations is as follows :—

Name of Voluntary Organization	Whole-time		Part-time in this service	
	Nurses	Pupils	Nurses	
			Actual	Equivalent of whole-time
Essex County Nursing Association (with affiliated local D.N.A.'s)	17	—	167	87
Colchester D.N.A.	4	—	—	—
Dagenham D.N.A.	3	2	—	—
Leyton D.N.A.	7	7	—	—
East Barking D.N.A.	4	—	—	—
Plaistow Maternity Hospital and District Nurses' Home	2	—	1	$\frac{1}{2}$
Walthamstow D.N.A.	4	—	5	2
Ilford D.N.A. (King George's Hospital) ..	5	—	—	—
Grays D.N.A.	1	—	1	$\frac{1}{4}$
Total	47	9	174	89 $\frac{1}{4}$

In addition every endeavour will be made to ensure that the numbers above-mentioned are augmented as far as circumstances permit.

Nursing staff employed in the Home Nursing Service who are qualified midwives will, in appropriate cases, be required to undertake combined duties both in connection with the Home Nursing Service and the service to be provided under Section 23 of the Act.

Consequent upon the approval of these proposals, the Authority will enter into discussions with the voluntary organizations providing dwelling houses for district nurses and/or training homes with a view to securing the use of these houses by nurses employed in the service under Section 25 and to arranging for the training of district nurses to continue at the training homes. The discussions will extend to motor cars and other property or equipment required for the service under Section 25.

Transport.

The existing facilities under which home nurses are provided with motor cars or bicycles, or paid allowances in respect of the use of their own motor cars or bicycles, will be continued. Arrangements will also be made, where appropriate, for the use, when not required for their primary purpose, of sitting case cars provided under the Proposals submitted for the provision of an ambulance service under Section 27 of the Act. As opportunity offers, arrangements will be made to ensure that every home nurse has the use of a car in connection with her duties.

PART III.

DEVELOPMENT PLAN.

The service which will operate from the appointed day will be circumscribed by the existing resources of staff, premises, equipment and transport, in regard to all of which there is a shortage throughout the area.

In regard to staff, it is proposed, as soon as practicable after the appointed day, to establish, on the basis of available statistical information on the incidence of sickness for the various age groups of the population, a working ratio of the actual number of nurses required to provide a service which will be in a position to meet all demands.

Information at present available indicates that the ultimate establishment to meet all requirements should be in the neighbourhood of 280 full-time nurses (or their part-time equivalent) on the basis of one full-time nurse per 5,000 of the population of the Administrative County, but this will depend upon the availability of hospital beds.

It is proposed, as soon as practicable after the appointed day, to endeavour to recruit full-time and part-time nurses (including male nurses) up to the number required on the before-mentioned basis, which should provide for a complete day and night service.

As soon as may be after the appointed day, a review of the premises, equipment and transport then available for the existing staff will be undertaken, and as soon as opportunity offers, the necessary improvements will be effected, particularly in regard to transport, and, as soon as the supply position permits, motor cars will be supplied for the use of all nurses.

SECTION 26.

Proposed Arrangements for Vaccination and Immunization.

PART I—STATISTICAL DATA.

County District	Population mid-1946	Child Population mid-1945*		Registered live births		Estimated % of mid-1945* child popula- tion who had been immunized against diphtheria up to 31-12-45*		Estimate of number of vaccinations against smallpox of children 0-15 which are likely to be under- taken in the year to 31-3-49
		Under 5	Ages 5-15	1945	1946	Under 5	Ages 5-15	
Barking B.	74,390	5,750	12,692	1,167	1,586	56	81	
Benfleet U.	18,960	1,122	1,796	282	361	62	93	
Billericay U.	39,710	2,817	6,142	639	772	89	78	
Braintree and Bocking U.	16,680	1,363	2,166	275	323	72.7	84.6	
Brentwood U.	27,730	1,855	4,335	319	500	95	70.8	
Brightlingsea U. ..	4,232	243	494	72	76	32	80.6	
Burnham-on-Crouch U.	3,582	272	443	55	79	98	95	
Canvey Island U. ..	9,103	547	1,053	137	207	55	62	
Chelmsford B.	34,670	2,022	5,017	616	700	66	96	
Chigwell U.	28,190	2,015	3,729	447	575	60	57	
Chingford B.	43,290	3,500	5,800	606	884	60	77	
Clacton-on-Sea U. ..	20,080	703	1,623	216	383	66	63	
Colchester B.	48,710	3,631	6,374	825	1,091	63.9	79	
Dagenham B.	106,530	7,810	20,020	1,847	2,380	61.9	60	
Epping U.	6,188	420	915	102	117	73	55	
Frinton and Walton U.	6,853	281	597	77	129	57	49	
Halstead U.	6,215	404	858	89	87	82	96	
Harwich B.	11,250	809	1,452	217	266	46.6	94	
Hornchurch U.	95,460	6,326	13,500	1,553	2,029	42	60	
Ilford B.	173,900	10,880	17,577	2,479	3,443	80	56	
Leyton B.	101,910	5,280	11,010	1,474	2,223	53	75	
Maldon B.	9,290	603	1,189	151	184	80	93	
Rayleigh U.	8,320	524	849	123	146	71	83	
Romford B.	65,920	5,034	10,000	1,138	1,462	63	63	
Saffron Walden B. ..	6,796	426	1,003	107	108	70	84	
Thurrock U.	67,430	5,100	10,850	1,156	1,595	38	60	
Waltham Holy Cross U.	7,390	508	1,092	103	136	47	59	
Walthamstow B. ..	118,050	6,500	13,500	1,713	2,544	50	80.8	
Wanstead and Woodford B.	57,570	3,478	6,248	759	1,117	72	97	
West Mersea U.	2,286	157	300	52	54	63.6	78	
Witham U.	7,960	580	1,142	145	170	98.6	89	
Wivenhoe U.	2,285	159	205	41	41	74.5	71	
Braintree R.	17,170	1,389	1,784	251	302	68.8	99.8	
Chelmsford R.	35,190	2,600	4,700	586	693	40.8	84	
Dunmow R.	17,810	1,500	2,079	266	342	72	96.5	
Epping R.	16,280	1,349	2,400	261	292	71	76	
Halstead R.	15,940	1,079	2,272	215	274	60	90	
Lexden and Winstree R.	20,850	1,448	2,778	329	369	67.8	81	
Maldon R.	13,400	980	1,880	214	268	47.5	89	
Ongar R.	13,870	1,110	2,190	251	284	63	79	
Rochford R.	16,830	1,200	2,280	264	319	85.8	82.9	
Saffron Walden R. ..	15,970	1,125	2,352	235	286	64	83	
Tendring R.	22,210	1,658	3,220	360	442	29	83	
Total for County	1,436,450	96,557	191,906	22,214	29,639	60.9	85.9	30,000

*Latest available figures.

PART II.

Unless and until the Council, with the approval of the Minister, otherwise decide, the arrangements embodied in the following Proposals, as approved by the Minister, will, in general, operate on and from the appointed day in relation to the following services :—

DIPHTHERIA IMMUNIZATION.

A. *Children under Five.*

(a) *General Plan.* The Council, as Local Health Authority, propose to secure, in co-operation with parents and all general medical practitioners in the Administrative County who are willing to participate in these arrangements and through the appropriate members of their own medical, nursing and other staff, including those employed by the Council as Local Education Authority, and in so far as the Council may find it to be appropriate in association with District Councils and, with such District Council's consent, their officers, a comprehensive and efficient free service, the object of which will be to achieve immunity against diphtheria for all persons in the Administrative County who desire this service, with concentration of effort to secure the immunization of children under the age of five years and more especially of babies before they reach the age of twelve months, such service to be made available through organized sessional or individual arrangements as circumstances may require.

(b) *Sessional Arrangements.* It is proposed that as regards the sessional arrangements referred to in sub-paragraph (a) above, these will, unless and until otherwise decided by the Council, adequately meet local requirements by such sessions to be held at the surgeries of general medical practitioners or in properties approved by the Council for that purpose, and also, as occasion arises, at residential establishments in the Administrative County accommodating children. The sessions will be ordinary or additional sessions as the need demands, and the facilities available will not be governed by the age groups of children normally attending any of the premises but will make provisions for children under five years of age. Whether an additional session shall be held will be determined by the number of children requiring attention, the proposal being that where the number of those children to be dealt with at any particular time is small, these children will normally attend the ordinary clinic sessions.

(c) *Encouragement of Immunization.* From the time notification of birth is received by the County Medical Officer of Health and constantly thereafter, parents will be encouraged to take advantage of the free facilities provided, both by personal contact through the medium of, and by the distribution of appropriate literature by, health visitors, midwives, school nurses and teachers who will be instructed to use every endeavour to ensure the early immunization of children in accordance with the aim of the general plan referred to in sub-paragraph (a) of this Part of these Proposals.

(d) *Steps to keep facilities before Public.* The facilities for immunization will be kept constantly before the public by means of the literature referred to in sub-paragraph (c) above and the propaganda mentioned in sub-paragraph (e) below. Steps will be taken to ensure that adequate information as to the places and times of sessions and other immunization facilities available from time to time is available to the public.

(e) *Local Propaganda.* Full use will be made of national publicity material made available by the Minister. Health Exhibitions will be organized and, when appropriate, announcements will be made through the Press or at cinema theatres and other places of public entertainment. Addresses and lectures by properly qualified persons to interested organizations and such other bodies of persons as may be considered to constitute an efficient publicity organ will also be arranged. All these methods for maintaining local propaganda will be additional to those proposed to be employed pursuant to sub-paragraphs (c) and (d) of this Part of these Proposals.

B. *Children of School Age.*

The Proposals of the Council in their relation to children under five years of age apply equally to children of school age, except so far as such Proposals are necessarily peculiar to children under five years of age. For children of school age the Council will also make sessional arrangements, to such extent as circumstances or experience may prove to be practicable and desirable, for immunization to be carried out at schools.

(f) *Reinforcing Injections.* School nurses and teachers will be directed persistently to endeavour to encourage and persuade parents of children primarily immunized in infancy to agree to those children being given reinforcing injections, from time to time according to circumstances. The injections will be given either under sessional or individual arrangements as may be appropriate, having regard to the circumstances relating to the child concerned.

C. *Records.*

All medical officers or general medical practitioners performing immunization, in pursuance of these Proposals as approved by the Minister, will be required by the Council to furnish to the Council such particulars for record purposes as the Council may require and in such a form as will enable the Council, as Local Health Authority, to keep such records and to furnish such information to the Minister as he may from time to time require. On the basis of receiving such particulars the Council will pay fees to general practitioners on such scales, according to circumstances, as are agreed upon between the Ministry and the profession.

D. *Medical Arrangements.*

As mentioned in paragraph A (a) of these Proposals, all general medical practitioners in the Administrative County, whether or not they intend to give service under Part IV of the National Health Service Act, 1946, will be given an opportunity and be invited to participate in the immunization arrangements of the Council. The aim of the Council is to provide an immunization service for the whole of the Administrative County through facilities to be afforded by general medical practitioners, and the extent to which the Council's medical staff or, with the consent of their employing authorities, the medical staffs of County District Councils will be used, will be that which shall prove necessary to supplement the services which general medical practitioners shall agree to render.

SMALLPOX.

A. *Infant Vaccination.*

(a) *General Plan.* The Council, as Local Health Authority, propose to secure, in co-operation with parents and all general medical practitioners in the Administrative County who are willing to participate in those arrangements and through the appropriate members of their own medical, nursing and other staff, including those employed by the Council as Local Education Authority, a comprehensive and efficient free service, the object of which will be to achieve the vaccination against smallpox in the early months of life of all infants of parents in the Administrative County who desire this service. Such service will equally be available through the lives of persons for the time being in the area of the Council who desire this service, both as regards vaccination and re-vaccination.

The service will be provided principally through general medical practitioners performing infant vaccinations, but such provision will be supplemented by sessional arrangements if and so far as circumstances may prove the need for such extended service, and in addition adequate facilities will be introduced, on the broad lines indicated later in these Proposals, to meet any outbreak of smallpox with a consequent large scale demand for vaccination and re-vaccination.

(b) *Arrangements for (i) Individual Vaccinations.* The Council propose that the vaccination of infants shall, whenever practicable, be performed by the general medical practitioners normally in attendance on the parents of such infants.

(ii) *Sessions.* When sessional arrangements (which will be available to both children and adults) are desired or prove to be necessary, it is proposed that they should, by arrangement with the General medical practitioners concerned, be carried out by them or by medical practitioners in properties approved by the Council for that purpose.

Individual and sessional vaccination arrangements will be equally available to persons in the Administrative County in need of re-vaccination.

(c) *Encouragement of Vaccination.* From the time notification of birth is received by the County Medical Officer of Health and constantly thereafter, parents will be encouraged to take advantage of the free facilities provided both by personal contact through the medium of, and distribution of appropriate literature by, midwives, health visitors, school nurses and teachers, who will be instructed to use every endeavour to ensure the early vaccination or the re-vaccination, as the case may require, of children in accordance with the aim of the general plan referred to in sub-paragraph (a) of this Part of the Proposals.

(d) *Steps to keep facilities before the Public.* The facilities for vaccination will be kept constantly before the public by means of literature referred to in sub-paragraph (c) above and the propaganda mentioned in sub-paragraph (e) below. Steps will be taken to ensure that adequate information as to the vaccination facilities available from time to time is available to the public.

(e) *Local Propaganda.* Full use will be made of national publicity material made available by the Minister. Health Exhibitions will be organized and, when appropriate, announcements will be made through the Press, at cinema theatres and other places of public entertainment. Addresses and lectures by properly qualified persons and interested organizations and such other bodies of persons as may be considered to constitute an efficient publicity organ will also be arranged. All these methods of maintaining local propaganda will be additional to those proposed to be employed pursuant to sub-paragraphs (c) and (d) of this Part of these Proposals. The Council propose to give particular attention to propaganda in and around the ports in the Administrative County.

B. *Records.*

All medical officers or practitioners performing vaccinations in pursuance of the Proposals as approved by the Minister, will be required by the Council to furnish to the Council such particulars for record purposes as the Council may require, and in such form as will enable the Council, as Local Health Authority, to keep such records and to furnish such information to the Minister as he may from time to time require. On the basis of receiving such particulars the Council will pay fees to general practitioners on such scales, according to circumstances, as are agreed upon between the Minister and the profession.

C. *Arrangements in the event of an outbreak of Smallpox.*

In the event of an outbreak of smallpox, the proposed arrangements referred to above will, if and as required, be intensified, and augmented vaccination facilities will be provided at convenient points throughout the area or areas affected and adjoining areas in the Administrative County at the request of the Medical Officers of Health of the County Districts concerned. These intensified arrangements will aim at ensuring co-operation and co-ordination of effort as between the local general medical practitioners, Medical Officers of Health of County Districts concerned and the appropriate staffs of the Council in order to satisfy the public needs with a minimum of delay. Arrangements will also be made for the public to be advised about vaccination (and re-vaccination) as a precaution, and to be fully informed of all the facilities available including the services of the family doctor.

D. *Medical Arrangements.*

As mentioned in paragraph A (a) of these Proposals, all general medical practitioners whether or not intending to give service under Part IV of the National Health Service Act, 1946, will be given an opportunity and be invited to participate in the vaccination arrangements of the Council. It is anticipated that in normal circumstances such proposed arrangements will adequately meet requirements but in so far as these arrangements are insufficient, or in the event of any large scale outbreak of smallpox, it is proposed by the Council to introduce the medical arrangements outlined in the immediately preceding paragraph of these Proposals.

MUNIZATION AGAINST OTHER DISEASES.

A. *Whooping Cough.*

The Council, as Local Health Authority, propose to continue such services as are present provided by County District Councils in respect of inoculation against whooping cough, subject to review in the light of experience. The further development of facilities for this type of inoculation in the County will be subject to the recommendation of the Council's Medical Officer of Health, who will be responsible for deciding the antigen(s) to be used and for keeping such records as will enable the value of inoculation against whooping cough to be assessed. The arrangements for whooping cough immunization will in general be similar to those for diphtheria immunization of children under school age, but the methods of propaganda with regard to it will be suited to the circumstances regarding the experimental development of this form of inoculation.

B. *Measles.*

If in exceptional circumstances it is considered expedient by the Council's Medical Officer of Health, and he so advises the Council, temporary arrangements may be made under his direction for group inoculation against measles as regards persons to whom it is thought advisable to offer this inoculation to protect them against exceptional risk.

SECTION 27.

Proposed Arrangements for Ambulance Services.

PART I.

1. Total mid-1946 population of the Authority's area—1,436,450.
2. Area in square miles—1,505.7.
3. Particulars of existing ambulance services—As already supplied to the Minister in the form requested by him. Similar particulars will be furnished to the North-East Metropolitan and East Anglian Regional Hospital Boards and the Executive Council for the Administrative County of Essex and will be available for inspection by, on behalf of, all bodies upon whom copies of these Proposals are required to be served, during normal office hours.

PART II.

1. Service which will in general operate from the appointed day. Unless and until the Council, with the approval of the Minister, otherwise decide, it is proposed that the arrangements embodied in the following proposals will operate on and from the appointed day.

A. *Co-ordination of existing Services.*

It is proposed that until the Council have had an opportunity of considering the position in the light of experience of actual operation of the services and of any functions

which may be vested in the Council in relation to the provision and maintenance of fire fighting services :—

- (a) All ambulance services which are directly under the control of the Council and County District Councils will be operated directly by the Council and the Local Health Authority.
- (b) All agency arrangements subsisting between the Council or County District Councils and voluntary organizations or other bodies will, so far as this can be arranged with such bodies, be continued between the Council as the Local Health Authority and those bodies, subject to such adjustments as detailed consideration of such agency arrangements shall prove, in the opinion of the Council, to be necessary or desirable.
- (c) Ambulance vehicles provided by voluntary, industrial, commercial or other organizations (except so far as such vehicles are included in the agency arrangements referred to in sub-paragraph (b) above) will remain outside the immediate control of the Local Health Authority but endeavours will be made in advance of the appointed day to secure the reciprocal use of all ambulances available by whomsoever operated and the co-ordination of the services provided by those organizations with those provided by the Council.
- (d) A day and night service will be operated within the Administrative County in collaboration, where agreement can be reached, with adjoining Local Health Authorities.
- (e) If arrangements satisfactory to the Council can be agreed between the Council and the voluntary organizations concerned in the operation of the Hospital Car Service (i.e. the British Red Cross Society, the St. John Ambulance Brigade and the Women's Voluntary Services), an agency arrangement will be concluded for a continuation of that service, subject nevertheless, to a review by the Council of such arrangements as and when sitting case cars can be provided by the Council; the aim of the Council being to terminate such arrangements as soon as the requisite number of sitting case cars can be provided by them.
- (f) Provision will be made, where the condition of patients permit and other circumstances are in the opinion of the Council appropriate, for journeys to be made by means of transport other than vehicles used in the operation of the ambulance services of the Council.

B. *Re-distribution and Augmentation of Existing Services.*

The only substantial re-distribution of vehicles which it is proposed should take place on the appointed day will be in connection with ambulance vehicles and sitting case cars at present stationed at hospitals, which vehicles it is anticipated will be transferred to the Minister and handed over by him to the County Council as Local Health Authority. In that eventuality, these would be transferred as indicated below :—

<i>Vehicles</i>		<i>At present stationed at</i>	<i>To be transferred to a Station sited</i>
<i>Amb.</i>	<i>S/C Cars</i>		
1	—	BILLERICAY : St. Andrew's	} at Billericay
2	—	Isolation	
1	—	BLACK NOTLEY : Essex County Council	} at or near Braintree.
1	—	BRAINTREE : Wm. Julien Courtauld ..	
(Plus 1 voluntary)			} at Braintree.
1	—	Isolation	
—	1	St. Michael's	} at or near Chelmsford.
1	—	BROOMFIELD : Essex County Council ..	
1	—	CHELMSFORD : St. John's	} at Chelmsford.
1	—	Isolation	
2	—	Chelmsford and Essex	} at Colchester.
4	—	COLCHESTER : Isolation	
(Plus 1 voluntary)			
1	1	EPPING : St. Margaret's	at Epping.
1	—	HALSTEAD : Isolation	at Halstead.
1	—	HARWICH : Harwich and District	at Harwich.
2	—	ILFORD : Isolation	at Ilford.
1	—	MALDON : Isolation	at Maldon.
1	—	ORSETT : Lodge	in the Thurrock Area.
5	1	ROMFORD : Oldchurch	at Romford.
2	—	Isolation	at Romford or at Dagenham.
1	—	SAFFRON WALDEN : St. James's	} at Saffron Walden.
1	—	Isolation	
1	—	STANWAY : St. Albright's	at or near Colchester.
3	1	THURROCK : Isolation	at Grays.
2	—	WALTHAM ABBEY : Isolation	at Waltham Holy Cross or in the Epping Area.
1	—	WALTHAMSTOW : Isolation	at Walthamstow.

It is not proposed that there should be any immediate material augmentation of existing services, except as indicated above, but arrangements will be made which will enable the concentration of ambulances to be accelerated in the event of any large scale accidents or disasters, e.g. in the vicinity of main line railways, air line routes, on the coast and big industrial concerns.

C. *Consultations with other Local Health Authorities in regard to Joint Arrangements.*

Consultations between officers have taken place with the County Boroughs of East and West Ham and Southend-on-Sea, and with the County Councils of Cambridge, East and West Suffolk, Hertfordshire, Middlesex and London. It is proposed that steps should be taken with a view to concluding before the appointed day, arrangements to achieve the objects indicated below, viz. :—

East Ham County Borough.

Mutual assistance between the Council and the County Borough Council.

West Ham County Borough.

Co-operation between the Council and the County Borough Council.

Southend-on-Sea County Borough.

The provision of an ambulance service by the County Borough Council for that part of the Rochford Hundred between the Roach and the Thames.

Cambridge County Council.

Mutual assistance between the two Councils.

East Suffolk County Council.

Reciprocal arrangements in regard to the border areas.

West Suffolk County Council.

Co-operation between the two Councils.

Hertfordshire County Council.

Reciprocal arrangements in regard to border areas with provision for long distance journeys owing to distances between hospitals.

Middlesex County Council.

Mutual assistance between the two Councils.

London County Council.

Mutual assistance with East and West Ham County Boroughs in regard to the North Woolwich enclave which is covered by them on behalf of the London County Council.

D. Staff.

It is proposed that, pending a review and subject to any adjustments which may be found by the Council to be necessary or desirable in the light of the considerations mentioned in paragraph 1A of this Part of these Proposals, the following staff will be employed to give effect to these Proposals :—

(a) As regards the agency arrangements between the Council as the Local Health Authority and the voluntary organizations or other bodies which will be concluded before and operate on and from the appointed day, as mentioned in paragraph 1A (b) of this Part of these Proposals, the following staff will be employed by those bodies :—

- (i) part-time and volunteer administrative staff equivalent to 2 full-time staff ;
- (ii) 40 full-time operational staff ;
- (iii) part-time and volunteer operational staff equivalent to 20 full-time staff.

(b) As regards the Ambulance Services which will be operated directly by the Council as Local Health Authority on and from the appointed day, the following staff will be employed :—

- (i) 17 full-time administrative staff ;
- (ii) 288 full-time operational staff.

The Council will make arrangements for securing that, as far as possible—

- (i) all ambulance drivers and attendants shall hold the first aid certificate of the St. John Ambulance Association, or the British Red Cross Society, or the St. Andrew Ambulance Association or such other first aid qualification as may be approved or prescribed by the Minister of Health ;
- (ii) All such drivers and attendants shall be so trained as to be interchangeable in their duties.

E. *Maintenance and Servicing.*

Pending a review, and subject to any adjustments which may be found by the Council to be necessary or desirable in the light of the considerations mentioned in paragraph 1A of this Part of these Proposals, it is proposed that the existing arrangements for maintenance and servicing will, so far as is found to be practicable, be continued on the understanding that, so far as private garages are concerned, absolute priority will be given to all ambulance vehicles and sitting-case cars either directly owned by the Council, as the Local Health Authority, or the subject of agency arrangements concluded by the Council as such Authority.

F. *Call Out Arrangements.*

The Council will use their best endeavour to secure that all hospitals, general medical practitioners, dentists, nurses, domiciliary midwives, the police, fire service and telephone authorities in or serving the County are informed of the action to be taken to call an ambulance.

2. DEVELOPMENT PLAN.

Subject to such review and adjustments as are referred to in paragraph 1A of this Part of these Proposals, the following programme is proposed :—

- (1) The replacement of as many unsatisfactory ambulances and sitting-case cars as is practicable and the purchase of new vehicles, as required.
- (2) The establishment of a more comprehensive central administrative organization than exists at present.
- (3) The establishment of appropriate sub-control units.
- (4) The making of agency arrangements with the voluntary and other bodies.
- (5) The making of joint arrangements with adjoining Authorities.

- (6) The formulation of a scheme for a concentration of ambulance vehicles at scenes of large scale disasters.
- (7) The augmentation, if necessary, of the service to totals not exceeding 145 ambulances, 50 sitting-case cars, and 450 drivers and attendants ; any increases in vehicles or staff to be déployed at such of the stations as the needs of the service may require.
- (8) The preparation, as soon as practicable, and, subject to the approval of the Minister, the operation of a complete scheme for a reorganized County Ambulance Service.

SECTION 28.

Proposed arrangements for Prevention of Illness, Care and After-Care.

PART I.

The Service will, subject to such directions as may be given from time to time by the Authority, be under the general control of the Health Committee.

The Clerk of the Council is the Authority's Chief Administrative Officer and, subject to the duties of the Clerk of the Council as such, the County Medical Officer will be responsible to the Authority for the organization and operation of the Service.

(A) *Tuberculosis.*

It is proposed that, in co-operation, where necessary, with the Regional Hospital Boards, the County Council (hereinafter where appropriate referred to as "the Authority") will continue active measures for the prevention of tuberculosis by means of (a) propaganda in the press and the exhibition of films, by holding health exhibitions, and by arranging for lectures on health topics to be given by the Authority's medical and nursing staffs, and, by arrangement with the Councils of County Districts, the medical staffs of such Councils ; (b) co-operating in investigations through the Regional Hospital Boards' mass radiography facilities for the early diagnosis of tuberculosis ; (c) the continuation and expansion, as the need arises, of the existing arrangements for sending children of infected parents to convalescent homes ; (d) the development of a boarding-out service with relatives or otherwise and the establishment, as the necessity and opportunity arise, of other suitable residential accommodation in the area for children of infected parents ; and (e) the continuation of the provision of open air shelters for use by tuberculous patients at their homes.

It is further proposed that, as soon as practicable after the appointed day, and as the opportunity arises, the Authority will, in co-operation, if practicable, with the Regional Hospital Boards, establish such workshops, night sanatoria, hostel accommodation, village settlements or any such other similar provision for ex-patients needing sheltered employment as the Authority may deem to be necessary and also a domiciliary occupational service, with the necessary staff of occupational therapists, for patients in their homes.

The authority will encourage by financial assistance and other means, the existing voluntary tuberculosis care associations in the area to continue their activities and will endeavour to ensure, by similar means, the formation of further associations, with a view to the Authority's area being covered by such associations. The associations at present operating are as set out in Appendix "A" to these proposals.

Where the Authority consider it desirable they will themselves supply articles such as beds and bedding, nursing requisites or sputum flasks, nutriments and clothing.

The Authority will seek arrangements with the Regional Hospital Boards for joint appointments of medical specialists concerned in diagnostic and curative work under the Boards and in preventive and care work under the Authority; and for the Authority's staff who visit the tuberculous in their homes to be associated with the tuberculosis clinics under the Board.

(B) *Mental Illness or Defectiveness.*

The Mental Health Service of the Authority will be a single service combining the mental treatment and mental deficiency services of the past.

The proposals for the care and after-care arrangements in regard to this service are included in those submitted in accordance with Circular 100/47, dated 16th June, 1947, under Section 51 of the National Health Service Act, 1946 (hereinafter referred to as "the Act").

It is intended to supply meals to mental defectives attending occupation centres.

(C) *Other types of Illness (or Illness generally).*

The Authority intend to develop arrangements, in the light of circumstances and experience, for affording all necessary care and after-care to persons discharged from hospital or other invalids.

The arrangements envisaged in the proposals submitted in connection with the Health Visiting Home Nursing and Domestic Help Services, together with the provision by the Executive Council under Part IV of the Act of a supply of proper and sufficient drugs and medicines and prescribed appliances, should, in the main, cater for the medical needs of patients discharged from hospital and requiring after-care. The Authority do not propose, therefore, to set up any after-care organization for such persons but propose, if after consultation with the Regional Hospital Boards the Authority consider it desirable and they are authorized to do so, to continue the existing arrangements for convalescents which are indicated in the Appendix "B" to these proposals. If the Authority consider it desirable, after consultation with the Regional Hospital Boards, to increase the facilities for convalescent treatment they will, so far as they are authorized by law, do so to such extent as they consider reasonable.

It is proposed to participate in the experimental "mobile meals" service which is being conducted by the Nuffield Provincial Hospitals Trust in the Thurrock Urban District, the purpose of which is both remedial and preventive, and is designed to benefit (i) those discharged from hospital to their own homes and who still require a prescribed diet before restoration to full working capacity; (ii) those who, falling ill in their own dwellings without anyone to look after them, are unable to obtain hospital accommodation; (iii) maternity cases lying in at home; (iv) feeble old people living alone; (v) chronic sick, including cripples.

So, however, that as regards persons referred to in (iv) and (v) the provision referred to would be to such extent as would not fall to be made by the Authority under the provisions of Part III of the National Assistance Act.

If at the conclusion of the experimental period of this service the Authority are satisfied that in all the circumstances then existing it is desirable and practicable to absorb it into the services provided under Section 28 of the Act they will do so. Further if the Authority in the light of experience consider it appropriate to extend this provision they will do so to such extent as they consider desirable.

In regard to the prevention of illness generally, the County Council's activities for securing a clean and safe milk supply will, until other arrangements are made, be continued, as will also the present arrangements for propaganda through the press and the exhibition of films, by holding health exhibitions and by arranging lectures on health topics. The County Council's medical and nursing staff and their staff of health inspectors, together with the medical and other staff of the Councils of County Districts will, if the latter agree, be available for giving lectures and talks to women's organizations, youth clubs, further education classes and similar bodies.

Proposals have already been submitted to the Minister for the provision of services under Section 26 of the Act, in connection with the arrangements for vaccination against smallpox and immunization against diphtheria.

The Authority will encourage the activities of the Essex Epidemiological Committee, which periodically surveys the infectious diseases occurring in the Administrative County and considers what steps should be taken to combat these diseases, and it is anticipated that such Committee will continue to issue memoranda for the guidance of Medical Officers of Health and general medical practitioners.

All these services will be kept under constant review and in the light of experience and as opportunity offers will be improved and extended.

(D) *Provision of Nursing Equipment and Apparatus.*

The Authority will encourage the present arrangements whereby sick room equipment is provided on loan by voluntary organizations, *e.g.*, the St. John Ambulance Brigade and the British Red Cross Society, and if the Minister approves it is proposed to make in the first instance an agreed annual contribution to these organizations in respect of the service thus provided.

The Authority will provide on loan sick room equipment. The development of this service, which will be proceeded with as soon as practicable, visualizes the provision of a loan cupboard, containing bed pans, urinals, mackintosh sheeting, feeding cups, sputum mugs, douche cans, steam kettles, inhalers, air rings and bed cradles, at the residence of each home nurse. This equipment will be supplied on loan to patients who are being attended by home nurses and midwives employed by the Authority, or who are being nursed at home by their relatives or friends.

The scheme will also be developed as soon as practicable by the provision of a central store of sick room equipment and larger items such as water beds, bed rests, bed blocks, sandbags, commodes, crutches and wheel chairs to be similarly available for patients needing them attending clinics and health centres to be established under Section 21 of the Act.

PART II.

COST.

The following is an estimate of the expenditure of the Authority during the period from 1st July, 1948, to 31st March, 1949, under the headings required :—

(a) Tuberculosis—£25,000.

(b) Other types of illness (or illness generally), including mental illness or defectiveness—£40,000.

APPENDIX “ A .”

LIST OF TUBERCULOSIS CARE ASSOCIATIONS.

Name of Association.	Area in which Association operates.
Barking Tuberculosis Care Association	Barking Borough
Chelmsford and District Tuberculosis Care Association	Chelmsford Borough and Chelmsford Rural District
Dagenham Tuberculosis Care Association	Dagenham Borough
Forest Area Tuberculosis Care Association	Loughton, Chigwell, Waltham Abbey, Buckhurst Hill and Epping
Ilford Tuberculosis Care Association	Ilford Borough
Leyton, Wanstead and Woodford Tuberculosis Care Association	Leyton and Wanstead and Woodford Boroughs
Romford and Hornchurch Tuberculosis Care Association	Romford Borough and Hornchurch Urban
Thurrock Tuberculosis Care Association	Thurrock Urban
Walthamstow and Chingford Association of Tuberculosis Care Helpers	Walthamstow and Chingford Boroughs
Saffron Walden Tuberculosis Care Association	Saffron Walden Borough and Rural District

APPENDIX “ B .”

EXISTING ARRANGEMENTS FOR CONVALESCENT TREATMENT.

Name of Institution.	Nature of Arrangement.
Roffey Park Rehabilitation Centre ..	Vacancies are obtained as and when they are available for patients on the recommendation of family doctor.
Essex Convalescent Home, Clacton-on-Sea.	Do.

SECTION 29.

Proposed Arrangements for Domestic Help.

PART I.

STATISTICAL DATA.

1. Area in square miles—1,505.7.
2. Mid-1946 population—1,436,450.

EXISTING SERVICE.

The County Council and eleven of the twelve autonomous welfare authorities within the Administrative County, namely the Councils of the Boroughs of Barkin, Chelmsford, Colchester, Dagenham, Harwich, Ilford, Leyton, Romford, Walthamstow and Wanstead and Woodford, and the Urban District Council of Thurrock, have adopted in general the proposals as set out in Ministry of Health Circular 110/4. One Welfare Authority (the Council of the Borough of Leyton) operates the scheme in co-operation with the Women's Voluntary Services.

Apart from the areas administered by the Council of the Borough of Harwich and the Urban District Council of Clacton-on-Sea respectively there has been a considerable demand throughout the Administrative County for this service. The main difficulty in meeting this demand has been the shortage of available woman-power and it has often been found necessary to give priority to confinement cases only.

In the rural areas the County Council co-operate with the Women's Voluntary Services and local Women's Institutes in relation to the supply of helps.

Details of the number of cases attended are set out later in these proposals.

The County Council have no whole-time organizer at present, but under the supervision of the County Medical Officer the Council's whole-time Non-medical Supervisor of Midwives carries out organizing duties in a part-time capacity. The demands of the scheme upon her limited time have necessitated the creation of the post of full-time organizer, and this appointment will shortly be made. The existing part-time organizer has the use of a motor car.

The Councils of the Boroughs of Dagenham, Ilford, and Romford respectively have appointed full-time organizers.

All these organizers are responsible for the recruitment and supervision of the home and domestic helps; they allocate duties, visit homes of applicants for home helps and inspect work carried out by the helps. All have clerical assistance.

The following table shows the number of home helps, domestic helps, and combined home and domestic helps at present employed, together with the number of cases attended during 1946 :—

WELFARE AUTHORITY	HOME HELPS		COMBINED HOME AND DOMESTIC HELP APPOINTMENT		CASES ATTENDED 1946
	<i>Full- time</i>	<i>On call only</i>	<i>Full- time</i>	<i>On call only</i>	
County Council	—	—	19	203	701
Barking B.	—	—	6	19	248
Chelmsford B.	—	2	—	—	19
Eggeson U.D.	—	—	—	—	—
Colchester B.	—	—	1	4	42
Dagenham B.	—	—	—	24	49
Harwich B.	—	—	—	1	—
Ilford B.	—	—	—	41	216
Leyton B.	—	—	3	15	74*
Romford B.	—	—	—	24	94
Thurrock U.D.	—	—	5	18	52
Walthamstow B.	Expectant Mother or Health Visitor selects Home Help				118
Wanstead and Woodford B. ..	—	2	—	—	23
Totals	—	4	34	349	1,636

*For period 12th August, 1946, to 31st December, 1946.

The County Council's full-time helps, when not engaged on home or domestic help duties, are employed in hospitals, clinics and day nurseries, and this applies generally, to the autonomous welfare authorities.

Helps are recruited by advertisement in the local press through employment exchanges and by personal contact. In addition, meetings of representative women's organizations have served to provide recruits. Midwives, district nurses and health visitors are also used as recruiting agents. The hours of duty vary from 35 to 48 hours a week.

The following table shows the hourly rates at present paid :—

Welfare Authority.	Hourly Rate paid.
County Council	1/6d. in areas outside the Metropolitan Police Area and 1/9 $\frac{3}{4}$ d. in the Metropolitan Police Area.
Barking B.	1/10 $\frac{1}{2}$ d.
Chelmsford B.	1/6d.
Colchester B.	1/6d.
Dagenham B.	1/7d.
Harwich B.	2/-
Ilford B.	1/9 $\frac{3}{4}$ d.
Leyton B.	1/9 $\frac{3}{4}$ d.
Romford B.	1/9 $\frac{3}{4}$ d.
Thurrock U.D.	1/6d.
Walthamstow B.	1/9 $\frac{3}{4}$ d.
Wanstead and Woodford B. ..	1/6d.

In addition to their remuneration, fares and out-of-pocket expenses are paid to home and domestic helps by nearly all welfare authorities.

No authority provides indoor and outdoor uniform. Three welfare authorities (the Councils of the Boroughs of Barking, Colchester and Leyton respectively) at present provide overalls, and arrangements are being made in the Borough of Dagenham for such provision.

Arrangements for bookings are made through the organizers (where appointed) health visitors, midwives, clinics, or by direct application to the public health department.

So far as "on call" workers are concerned, a retaining fee of 7/6d. weekly is paid to four helpers in the Borough of Dagenham and a fee of 5/- weekly to twenty helpers in the Borough of Ilford. In the Borough of Leyton a retaining fee of 5/- weekly is paid to helpers "on call" when they are not employed.

The charges made for the use of the home and domestic helps vary according to the circumstances of the persons availing themselves of the service. The amount of the charges made is based on the information furnished in Ministry of Health Circular 110/46, or in accordance with the scales of contributions adopted by individual welfare authorities.

PART II.

DESCRIPTION OF THE SERVICE WHICH WILL OPERATE ON THE APPOINTED DAY.

General Administrative Arrangements.

1. The Service will, subject to such directions as may be given from time to time by the Authority, be under the general control of the Health Committee.

The Clerk of the Council is the Authority's Chief Administrative Officer and, subject to the duties of the Clerk of the Council as such, the County Medical Officer will be responsible to the Authority for the organization and operation of the Service.

It is proposed that all existing home and domestic help services in the Administrative County will be transferred to, and be controlled by, the County Council (hereinafter referred to as "the Authority").

It is intended to appoint, before the appointed day, an organizer of domestic helps to assist the County Medical Officer in the organization and development of the service throughout the Administrative County.

It is anticipated that the existing staff of organizers employed in connection with the home help and domestic help schemes in the autonomous welfare authorities areas will be transferred to, and be employed by, the Authority as Local Health Authority. These and similar officers to be appointed before the appointed day, will together with the necessary clerical staff, be allocated to duty in administrative subdivisions. It is proposed as opportunity offers to recruit and employ at least 10 full-time and 450 part-time domestic helps in the Administrative County.

Organizers, where it is considered to be necessary, will be provided with a motor car.

It is proposed that outdoor and indoor uniform, if and as considered necessary, will be provided, when available, to all domestic helps.

Helps will not be sent into a household where tuberculosis or other infectious disease is present, without the consent of the Medical Officer of Health of the County District in which the household is situated.

2. In rural areas of the Administrative County the arrangements set out in paragraph 1 above will in general apply, but in addition, it is proposed initially to continue to co-operate with the local Women's Institutes and the Women's Voluntary Services in relation to the supply of domestic helps.

3. It is not proposed at this stage to enter into joint arrangements with other Local Health Authorities.

4. It is proposed, with the approval of the Minister, to make and recover from persons availing themselves of the domestic help provided under Section 29 of the National Health Service Act, 1946, such charges (if any) as the Authority consider reasonable, having regard to the means of those persons.

PART III.

DEVELOPMENT PLAN.

The whole of the Administrative County will not be adequately covered by the service described in Part II owing to shortage of staff.

Between the appointed day and 1st April, 1949, therefore, every endeavour will be made to recruit sufficient helps to meet all calls on the existing service up to the minimum referred to in paragraph 1 of Part II of these proposals.

Before 1st April, 1949, every endeavour will be made to appoint additional organizers, together with the necessary clerical assistance, to meet the needs of the service.

Thereafter, in the light of experience and the expansion of the service additional staff, including helps, will, as opportunity offers, be recruited as required to meet all calls on the service.

SECTION 51.

Proposed Arrangements for Mental Health Service.

PART I.

STATISTICAL DATA.

Population of the area (mid-1946)—1,436,450.

Number of patients chargeable to the Local Authority under the Lunacy and Mental Treatment Acts on 25th June, 1947—3,642.

Number of patients dealt with under these Acts by the Relieving Officers of the area for the year ended 31st March, 1947—1,081.

Number of defectives ascertained as subject to be dealt with under the Mental Deficiency Acts in the course of the year 1946—282.

Number of persons reported to the Local Authority as mentally defective during the year 1946—290.

PART II.

PROPOSALS.

(A) *General.*

1. It is proposed that as from the appointed day the Health Committee established by the County Council (hereinafter referred to as “ the Authority ”), in accordance with the Fourth Schedule of the National Health Service Act, 1946 (hereinafter referred to as “ the Act ”), will, subject to such directions as may be given by the Authority from time to time, be responsible for the general control of the Mental Health Service.

The Clerk of the Council is the Authority's Chief Administrative Officer, and, subject to the duties of the Clerk of the Council as such, the County Medical Officer will be responsible to the Authority for the organization and operation of the Service.

(B) *Medical.*

2. (a) On or before the appointed day or as soon as practicable thereafter—

- (i) provision will be made for the County Medical Officer to be assisted in the medical direction of the service by a Senior Medical Officer, with special qualifications or experience in mental health, to be appointed to his staff;
- (ii) an Assistant County Medical Officer, in addition to the Senior Medical Officer referred to in sub-paragraph (i) above, will be employed whole-time on medical certification duties in connection with the Mental Health Service.

(b) As soon as circumstances require, a further Assistant County Medical Officer (additional to the officers referred to in the immediately preceding sub-paragraph) will be appointed to assist whole-time with medical certification work.

(c) It is intended that arrangements shall be concluded with the Regional Hospital Boards for the use of the services of Specialist Medical Officers employed at hospitals in the County for the purpose of advising the Authority, when occasion may require, in regard to the certification of mental defectives other than low grade cases.

(C) *Non-Medical.*

3. It is intended that on and from the appointed day or as soon thereafter as may be necessary and may prove practicable, the non-medical staff to be employed whole-time on the functions devolving upon the Authority in relation to their duties under the Lunacy and Mental Treatment Acts and the Mental Deficiency Acts, and in connection with the voluntary supervision of persons not subject to be dealt with under the Mental Deficiency Acts, and patients discharged from orders under those Acts, should include the following :—

Administrative Staff—whole-time.

- 1 chief Mental Welfare Visitor.
- 1 deputy chief Mental Welfare Visitor.
- 1 organizer of Occupation Centres.
- 1 senior clerk.
- 2 clerks.
- 6 general clerks or shorthand-typists.

Other Staff—whole-time.

- 1 Supervising Duly Authorized Officer and Petitioning Officer.
- 1 Assistant Petitioning Officer.
- 30 Mental Welfare Visitors who will be appointed as duly authorized officers.

In addition and in consultation with the Regional Hospital Boards, steps will be taken to secure, if practicable, the continuance of the arrangement at present existing, whereby visitors on the staff of the Royal Eastern Counties Institution at Colchester, undertake the visiting of certain defectives residing in Colchester or its vicinity. It is also intended that the Authority shall give such assistance in the matter of visiting persons on licence from Institutions for Mental Defectives as may be agreed with the Regional Hospital Boards as desirable.

Assistance in the visiting and supervision of defective persons will also be given by the staff of Health Visitors provided by the Authority under their Proposals in connection with Health Visiting under Section 24 of the Act.

4. On and from the appointed day it is proposed, if practicable, to appoint as Visitors selected experienced District Welfare Officers qualified as being familiar with the procedure under the Lunacy and Mental Treatment Acts, to act as duly authorized officers. In addition, arrangements will be made with the Regional Hospital Boards, so far as it may be found to be mutually desirable to do so, for mental health workers in Mental Hospitals in the County to be appointed as duly authorized officers who will assist with the admission of patients to hospitals if required. In order to provide a twenty-four hours a day and a seven days a week service throughout the County, duly authorized officers will be stationed at and operate from certain fixed points in the County as for example :—

Barking, Chelmsford, Colchester, Dagenham, Dunmow, Grays, Halstead, Ongar, Walthamstow, Wanstead and Woodford.

Arrangements will be made for telephones to be installed in their private houses and for a rota to be operated so that an adequate number of such officers is on call throughout the period outside normal office hours. It is intended that each of the officers should be provided with a motor car to enable the officers to respond to calls with the least possible delay. Other adult members of the staff referred to in paragraph (C) 3, above, will also be appointed as duly authorized officers to enable them to undertake relief duty as and when required. All officers who will be required to undertake duty as duly authorized officers, will, by arrangement with the Regional Hospital Boards, be sent for short refresher courses to Mental Hospitals for the purpose of obtaining information as to the most modern methods of dealing with patients. Other courses of instruction will be arranged as found necessary or desirable.

5. (a) The Mental Welfare Visitors will continue the present practice in regard to advising parents in connection with the training of mental defectives. In addition the following staff will continue to be employed at existing Occupation Centres :—

- 1 whole-time instructor-in-charge.
- 2 whole-time supervisors.
- 11 whole-time assistant instructors.
- 1 part-time assistant instructor.

The existing senior occupation centre at Dagenham and the two existing junior occupation centres at Dagenham and Walthamstow respectively, will also be continued (the latter will shortly be transferred to new premises at Brookfield, Highams Park, Walthamstow). Provision of transport for defectives attending occupation centres will be continued and, as indicated in the Proposals submitted for the provision of this service to be provided by the Authority under Section 28 of the Act, the service of mid-day meals at such centres will also be continued.

(b) As soon as practicable before 1st April, 1951, it is proposed to increase the number of occupation centres by commencing new centres at Chelmsford, Barking, Dagenham (to relieve the existing junior centre), Grays, Hornchurch (or Romford) and at Walthamstow (additional to the existing centre) and others as may be necessary to meet requirements from time to time. For these centres, it is estimated that the following additional staff will be needed initially :—

- 5 whole-time supervisors.
- 20 whole-time assistant instructors.

Consultations will also be initiated with the Regional Hospital Boards with a view to the continuation of an occupation centre at Colchester to be provided and staffed by the Royal Eastern Counties Institution.

(c) At a later stage, when the additional occupation centres referred to above have been established and if it is found necessary in the light of experience gained as a result of the establishment of a complete occupation centre service, it is proposed to develop a scheme for training defectives in their own homes especially in the rural areas of the County and to employ the necessary trained staff for such a scheme.

(D) *Ambulance Service.*

6. The Ambulance Service arrangements are as outlined in the Proposals already submitted for carrying out the duties of the Authority under Section 27 of the Act and the vehicles referred to therein will be available, with the necessary attendant, and when required by duly authorized officers. In addition, it is intended that arrangements shall be made as soon as possible with Regional Hospital Boards for duly authorized officers to have a call, as occasion demands, upon hospitals for the use of any hospital ambulance and/or trained staff which may be available.

TABLE VI.
BIRTHS, DEATHS, ANNUAL RATES, &c., 1947.

Sanitary District	Census 1931		Registrar-General's Figures.					Deaths at Various Ages (figures supplied by Medical Officer of Health)												Crude annual rates per 1,000 estimated population					Infant Mortality Rate per 1,000 live Births	
	Acreage	Adjusted Population	Estimated Population	Live Births	Still Births	Deaths at all Ages	Deaths under 1 Year of Age	Under 1 year	1 and under 2	2 and under 5	5 and under 15	15 and under 25	25 and under 35	35 and under 45	45 and under 55	55 and under 65	65 and under 75	75 and upwards	Total Deaths	Birth Rate	Death Rate	Zymotic Death Rate	T.B. Res. Death Rate	Other Res. Death Rate		
(1) URBAN	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	
BARKING B.	3,877	51,270	77,660	1,850	31	677	58	58	6	4	7	21	23	27	84	143	136	168	677	23.8	8.7	0.12	0.66	1.27	31	
BENFLEET	6,361	12,091	19,720	383	5	308	8	8	—	1	1	1	4	5	15	44	93	136	308	19.4	15.6	—	0.41	1.62	21	
BILLERICAY	29,367	27,708	40,790	892	19	543	22	22	3	—	3	10	4	19	39	78	149	216	543	21.9	13.3	—	0.34	1.47	25	
BRAINTREE AND BOCKINGO	6,812	13,497	17,070	310	11	207	10	10	—	—	3	2	1	9	11	33	68	70	207	18.2	12.1	—	0.18	0.70	32	
BRENTWOOD	18,269	23,694	27,870	520	12	332	24	24	2	—	6	5	5	13	20	50	67	140	332	18.9	11.9	0.07	0.57	1.22	46	
BRIGHTLINGSEA	2,852	4,147	4,310	95	3	66	3	3	—	—	—	—	—	1	7	15	12	28	66	22.0	15.3	—	0.23	1.62	32	
BURNHAM-ON-CROUCH	5,352	3,492	3,683	70	1	49	—	—	—	—	2	—	—	2	2	7	13	18	44	19.0	13.3	—	0.27	0.81	—	
CANVEY ISLAND	4,351	3,532	10,030	239	6	131	7	7	—	1	2	—	—	6	6	7	18	38	46	131	23.8	13.1	0.10	0.50	1.30	29
CHELMSFORD B.	4,772	27,457	35,190	731	13	347	20	23	2	1	4	4	3	10	21	50	93	136	347	20.8	9.9	0.09	0.28	1.02	27	
CHIGWELL	8,971	16,338	30,170	625	14	298	20	20	4	1	2	3	6	8	25	32	80	117	298	20.7	9.9	0.10	0.23	1.46	32	
CHINGFORD B.	2,868	22,076	45,430	924	17	388	12	13	—	3	2	9	15	31	33	63	96	123	388	20.3	8.5	0.04	0.55	1.01	13	
CLACTON-ON-SEA	6,470	16,737	21,960	403	2	336	12	11	—	2	3	3	2	5	15	50	106	139	336	18.4	15.3	0.05	0.32	0.91	30	
COLCHESTER B.	12,011	49,131	49,990	1,060	22	637	28	27	3	3	8	6	12	17	44	100	170	247	637	21.2	12.7	0.06	0.24	1.02	26	
DAGENHAM B.	6,554	89,362	110,040	2,609	51	730	80	80	1	7	15	28	26	43	95	130	131	172	728	23.7	6.6	0.10	0.49	0.96	31	
EPFING	1,488	5,081	6,342	132	6	86	2	2	—	—	1	1	6	5	9	10	15	34	83	20.8	13.6	—	0.63	1.42	15	
FRINTON AND WALTON	6,293	7,324	7,628	111	2	115	6	6	—	—	—	—	—	1	—	11	14	26	57	115	14.6	15.1	0.26	0.13	1.84	54
HALSTEAD	1,176	6,012	6,349	99	2	85	5	5	—	—	—	—	4	6	10	11	25	48	109	15.6	13.4	—	0.32	0.79	50	
HARWICH B.	1,512	12,046	11,800	286	6	152	8	8	2	—	2	—	2	10	18	19	38	53	152	24.2	12.9	0.08	0.51	1.44	28	
HORNCHURCH	19,768	39,389	99,660	2,064	40	829	56	55	8	6	8	16	23	41	74	120	181	287	819	20.7	8.3	0.06	0.33	1.26	27	
ILFORD B.	8,425	131,061	179,820	3,368	85	1,739	82	82	5	7	10	24	37	92	185	272	426	599	1,739	18.7	9.7	0.05	0.36	1.10	24	
LEYTON B.	2,594	128,313	105,550	2,359	42	1,278	78	78	2	7	5	16	33	44	98	192	340	463	1,278	22.3	12.1	0.11	0.39	1.76	33	
MALDON B.	4,809	8,542	9,438	205	3	119	3	3	2	—	2	—	4	3	5	16	32	54	121	21.7	12.6	—	0.42	1.38	15	
RAYLEIGH	5,727	6,407	8,691	191	6	138	5	5	1	1	—	4	1	4	11	9	41	61	138	22.0	15.9	—	0.58	1.84	26	
ROMFORD	9,342	37,840	68,860	1,624	27	870	39	39	3	4	6	15	21	30	56	92	167	234	667	23.6	9.7	0.09	0.42	1.13	24	
SAFFRON WALDEN B.	7,502	5,930	7,025	139	1	110	8	8	—	1	—	—	3	3	7	9	33	46	110	19.8	15.7	0.14	0.14	1.14	58	
THURROCK	38,324	61,644	71,350	1,853	35	676	67	65	4	7	11	19	20	32	76	91	158	201	684	26.0	9.5	0.08	0.36	1.08	36	
WALTHAM HOLY CROSS	10,958	7,092	7,730	140	4	100	4	4	1	—	1	2	2	4	10	16	24	36	100	18.1	12.9	—	0.13	1.16	29	
WALTHAMSTOW B.	4,342	132,972	122,470	2,670	59	1,315	77	77	10	8	12	21	98	24	329	760	1,315	21.8	10.7	0.07	0.43	1.72	—	29		
WANSTEAD AND WOODFORD B.	3,842	43,129	60,280	1,190	29	660	37	38	—	2	4	6	13	24	51	96	177	249	660	19.9	10.9	0.07	0.27	1.29	31	
WEST MERSEA	3,171	2,067	2,357	54	1	48	1	1	—	2	—	1	—	—	2	4	15	25	50	22.9	20.4	—	0.42	2.12	19	
WITHAM	7,329	6,751	8,144	149	6	78	5	5	—	—	2	2	1	4	7	10	18	29	78	18.3	9.6	0.12	0.00	1.35	34	
WIVENHOE	1,493	2,193	2,353	52	0	46	1	1	—	—	—	3	2	—	2	5	11	19	43	22.1	19.5	—	0.42	2.55	19	
TOTAL—BOROUGH AND URBAN	256,982	1,004,325	1,279,760	27,406	561	13,293	788	788	129	122	1,087	3,190	7,977	13,293	21.4	10.4	0.07	0.39	1.27	29						
RURAL																										
BRAINTREE	59,556	16,378	17,560	292	9	223	13	13	3	—	—	1	4	4	13	34	48	103	223	16.6	12.7	—	0.23	0.91	45	
CHELMSFORD	86,506	27,836	35,930	770	12	428	18	18	2	6	3	5	6	13	24	55	99	197	428	21.4	11.9	—	0.22	0.81	23	
DUNMOW	72,487	15,320	17,980	345	6	237	7	7	—	2	2	2	2	9	11	29	62	111	237	19.2	13.2	0.05	0.44	1.22	20	
EPFING	34,851	13,576	16,700	322	11	205	6	6	—	1	1	—	8	7	13	24	47	95	202	19.3	12.3	0.06	0.24	1.20	19	
HALSTEAD	76,693	15,997	16,280	285	7	226	10	10	—	2	—	3	1	3	14	22	61	106	222	17.5	13.9	—	0.06	0.98	35	
LEXDEN AND WINSTREE	66,097	19,418	21,490	394	8	250	3	3	3	1	2	—	6	8	18	29	68	112	250	18.3	11.6	—	0.28	0.93	7	
MALDON	78,507	13,348	13,610	259	2	192	3	3	—	2	1	4	3	3	8	28	54	86	192	19.0	14.1	—	0.29	1.06	12	
ONGAR	47,236	11,523	14,230	300	4	145	10	10	—	—	2	2	4	9	8	21	27	52	135	21.1	10.2	0.07	0.21	1.41	33	
ROCHFORD	36,080	13,969	17,480	380	8	255	10	10	1	1	2	2	7	8	12	40	64	108	255	21.7	14.6	0.06	0.17	1.77	26	
SAFFRON WALDEN	78,585	15,543	16,500	298	8	223	8	8	—	—	1	4	2	6	8	27	55	112	223	18.1	13.5	—	0.30	1.33	27	
TENDRING	65,884	21,771	22,950	478	17	283	16	16	—	—	4	3	6	5	16	34	62	137	283	20.8	12.3	0.04	0.22	0.92	33	
TOTAL—RURAL	702,482	184,679	210,710	4,123	92	2,667	104	104	23	17	148	498	1,877	2,667	19.6	12.7	0.02	0.24	1.10	25						
TOTAL—BOROUGH AND URBAN	256,982	1,004,325	1,279,760	27,406	561	13,293	788	788	129	122	1,087	3,190	7,977	13,293	21.4	10.3	0.07	0.39	1.27	29						
TOTAL—ADMINISTRATIVE COUNTY	959,464	1,189,004	1,490,470	31,529	653	15,960	892	892	152	139	1,235	3,588	9,854	15,960	21.2	10.7	0.07	0.37	1.25	28						

The figures in Columns 9-20 are given by the District Medical Officers of Health, whereas the totals are supplied by the Registrar-General.

CAUSES OF DEATH IN THE ADMINISTRATIVE COUNTY OF ESSEX—BY AGE AND SEX

Cause of Death	Males							Females						
	0 -	1 -	5 -	15 -	45 -	65 -	Total	0 -	1 -	5 -	15 -	45 -	65 -	Total
1. Typhoid and paratyphoid	—	—	—	—	—	1	1	—	—	—	—	—	—	0
2. Cerebral-spinal fever	5	4	—	1	—	1	11	4	2	—	—	—	—	6
3. Scarlet fever	—	—	—	—	—	—	0	—	—	—	—	—	—	0
4. Whooping cough	4	3	—	—	—	—	7	13	2	1	—	—	—	16
5. Diphtheria	—	1	2	—	—	—	3	1	—	1	1	—	—	3
6. Tuberculosis—respiratory	—	—	2	137	121	41	301	2	2	3	182	48	16	253
7. Tuberculosis—other forms	3	7	5	10	7	4	36	1	8	6	21	5	3	44
8. Syphilitic disease	1	—	—	4	26	28	59	1	—	—	1	10	8	20
9. Influenza	4	1	2	9	21	34	71	2	1	—	7	18	36	64
10. Measles	2	3	2	—	—	—	7	—	4	1	—	—	—	5
11. Acute poliomyelitis and polioencephalitis	1	—	6	8	1	—	16	—	—	3	6	—	—	9
12. Acute infectious encephalitis	1	—	—	2	3	2	8	—	—	—	—	2	1	3
13. Cancer of mouth and oesophagus	—	—	—	2	19	78	99	*	*	*	*	*	*	*
14. Cancer of uterus	—	—	—	—	—	—	0	—	—	—	9	50	50	109
15. Cancer of stomach and duodenum	—	—	—	19	112	139	270	—	—	—	7	64	136	207
16. Cancer of breast	—	—	—	—	1	2	3	—	—	—	32	121	123	276
17. Cancer of all other sites	1	7	2	55	392	512	969	1	1	—	50	275	428	755
18. Diabetes	—	—	1	6	6	20	33	—	1	—	3	12	44	60
19. Intra-cranial vascular lesions	—	—	1	9	152	620	782	1	—	—	19	186	892	1,098
20. Heart disease	—	—	1	77	554	1,659	2,291	—	—	2	69	286	1,794	2,151
21. Other circulatory diseases	1	—	—	6	59	232	298	—	—	—	8	50	252	310
22. Bronchitis	10	4	2	20	162	382	580	11	2	1	12	47	304	377
23. Pneumonia	89	17	4	14	88	166	378	71	13	1	15	44	208	352
24. Other respiratory diseases	—	1	—	12	45	40	68	—	1	—	11	22	42	76
25. Ulcer of stomach or duodenum	1	—	—	17	67	50	135	—	—	—	2	12	19	33
26. Diarrhoea under two years	32	2	—	—	—	—	34	22	—	—	—	—	—	22
27. Appendicitis	—	2	2	7	12	7	30	—	—	3	4	10	5	22
28. Other digestive diseases	7	1	2	11	43	75	139	8	2	3	15	39	102	169
29. Nephritis	1	—	1	19	49	124	194	—	—	1	20	45	105	171
30. Puerperal and post-abortive sepsis	—	—	—	—	—	—	0	—	—	—	5	—	—	5
31. Other maternal	—	—	—	—	—	—	0	—	—	—	21	—	—	21
32. Premature birth	106	—	—	—	—	—	106	78	—	—	—	—	—	78
33. Congenital malformation, birth injury and other infant diseases	188	6	1	13	13	1	222	170	9	5	5	7	—	196
34. Suicide	—	—	—	19	31	19	69	—	—	—	19	31	11	61
35. Road traffic accidents	—	11	9	36	22	17	95	1	1	8	3	7	15	35
36. Other violent causes	17	8	19	48	39	58	189	8	4	9	9	14	70	114
37. All other causes	10	7	17	55	133	416	638	13	14	10	63	105	462	667
All Causes	484	85	81	616	2,178	4,728	8,172	408	67	58	619	1,510	5,126	7,788

*For females, cancer of the mouth and oesophagus is included under "cancer of all other sites".

TABLE VIII.
CAUSES OF DEATH—YEAR 1947.
(Figures supplied by the Registrar-General).

SANITARY DISTRICT.	Typhoid & Paratyphoid Fevers.	Cerebro-Spinal Fever.	Scarlet Fever.	Whooping Cough.	Diphtheria.	Tuberculosis of Respiratory System.	Other forms of Tuberculosis.	Syphilitic Diseases.	Influenza.	Measles.	Acute Follomyelitis. Folio-encephalitis.	Acute Infectious Encephalitis.	Cancer of Buccal Cavity and Oesophagus (M).	Cancer of Stomach and Duodenum.	Cancer of Breast.	Cancer of all other sites.	Diabetes.	Intra-Cranial Vascular Lesions.	Heart Disease.	Other Diseases of Circulatory System.	Bronchitis.	Pneumonia.	Other Respiratory Diseases.	Ulcer of Stomach or Duodenum.	Diarrhoea (under 2 years).	Appendicitis.	Other Digestive Diseases.	Nephritis.	Fueral and Post-Abortive Septis.	Other Maternal Causes.	Premature Birth.	Congenital Malformations. Birth Injury. Infantile Disease.	Suicide.	Road Traffic Accidents.	Other Violent Causes.	All Other Causes.	TOTAL.			
URBAN	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)				
BARKING B.	2	...	4	...	51	5	5	3	1	2	2	9	28	6	79	5	56	155	19	61	27	11	6	5	5	13	15	...	...	15	25	2	10	11	39	677			
BENFLEET	8	...	...	...	...	...	...	1	5	8	31	1	49	109	13	10	18	4	...	...	...	...	...	...	...	15	2	...	...	...	...	...	...
BILLERICAT	2	...	...	...	14	4	...	3	...	...	...	6	20	8	50	3	64	150	29	32	23	5	...	...	...	...	...	...	...	15	2	...	...	...	...	...	...
BRAINTREE & BOOKING	...	2	...	...	...	3	2	...	1	...	...	...	3	3	2	35	1	26	69	3	8	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
BRENTWOOD	1	...	...	...	16	1	...	2	1	1	...	3	7	6	25	2	49	75	15	10	22	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
BRIGHTLINGSEA	1	1	...	1	...	...	...	2	1	2	9	...	8	17	2	4	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
BURNHAM-ON-CROUCH	1	1	...	...	...	...	...	2	1	2	2	...	10	10	2	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
CANVEY ISLAND	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
CHELMSFORD B.	5	...	...	2	1	...	...	2	7	3	19	...	12	33	3	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
CHIGWELL	2	...	10	1	...	1	2	2	...	8	9	4	45	...	41	95	13	18	15	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
CHINGFORD B.	1	...	...	...	7	1	...	1	2	...	...	6	7	6	33	1	47	74	9	17	23	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
CLACTON-ON-SEA	25	4	...	2	5	...	3	2	16	5	51	5	43	86	17	23	18	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
COLCHESTER B.	2	7	11	...	1	...	4	7	2	47	2	52	112	20	15	4
DAGENHAM B.	1	...	5	...	12	3	...	2	4	1	3	1	13	9	75	3	99	211	20	20	19	12
EPPIING	54	9	...	2	7	2	1	14	30	15	89	2	41	176	15	57	42	7
FRINTON & WALTON	1	...	...	...	...	4	...	...	1	...	...	...	1	1	1	18	...	9	26	1	4	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
HALSTAD	1	...	...	...	1	...	...	...	...	1	...	2	5	...	7	...	20	25	16	7	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
HARWICH B.	2	...	...	1	...	...	...	...	6	2	7	...	8	27	...	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
HORNTHURGH	1	...	...	...	6	...	...	...	...	...	...	2	3	...	9	...	26	31	6	10	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
ILFORD B.	33	5	...	4	3	...	1	12	22	13	95	4	91	229	24	66	48	12
LEYTON B.	1	65	10	...	20	1	1	...	25	51	42	200	14	176	480	57	106	68	24
MALDON B.	41	4	...	6	10	2	1	12	44	18	132	9	137	363	36	114	69	13
RATLEIGH	4	1	2	2	1	9	...	15	51	2	7	5
ROMFORD B.	5	...	...	1	...	...	...	4	6	8	...	21	33	9	...	9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
SAFFRON WALDEN B.	29	3	...	2	...	2	...	8	18	16	74	8	77	194	25	46	24	8
THURROCK	1	...	...	...	1	...	...	...	...	...	...	1	6	3	10	...	15	31	5	1	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
WALTHAM HOLY CROSS	26	6	...	4	...	...	...	1	7	...	22	4	74	174	42	27	40	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
WALTHAMSTOW B.	1	...	...	...	1	...	...	...	...	...	...	1	2	...	8	...	17	22	5	7	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
WANSTEAD & WOODFORD B.	53	5	...	12	2	...	1	21	39	29	145	7	130	358	46	111	81	19
WEST MERSEA	18	1	5	10	...	...	...	9	20	12	84	2	80	171	20	42	30	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
WITAM	1	...	...	...	...	...	...	3	2	...	5	...	10	14	1	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
WIVERNOR	1	...	...	2	...	1	...	1	2	...	8	...	7	18	3	8	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	1	16	...	21	6	503	68	66	112	12	19	11	181	401	235	1,460	81	1,515	3,635	479	852	621	157	141	53	43	261	299	5	18	171	347	112	105	260	1,026	13,293			
RURAL.						4	3	...	2	...	...	...	2	5	1	23	2	32	67	11	10	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
BRAINTREE	8	...	...	...	...	...	...	3	12	7	42	3	65	104	27	12	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
CHELMSFORD	1	...	...	...	8	1	...	...	...	...	...	3	10	5	23	...	39	55	14	14	7	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
DUNMOW	1	...	...	4	...	...	...	...	...	...	1	7	3	20	...	22	65	17	8	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
EPPIING	4	2	...	...	...	...	...	1	7	3	20	...	22	65	17	8	12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
HALSTAD	1	...	...	...	...	...	...	4	9	3	18	...	41	69	8	5	11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
LEXDEN & WINSTREE	6	1	...	3	...	...	...	3	4	6	30	...	32	96	8	11	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
MALDON	4	...	...	...	...	...	...	6	9	3	19	...	24	75	7	9	4	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
ONGAR	3	2	...	2	...	1	...	1	4	2	15	...	14	37	9	6	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
ROCHFORD	3	1	...	...	...	1	...	2	8	5	29	...	32	87	12	5	23	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
SAFFRON WALDEN	5	2	...	2	...	1	...	1	4	4	23	1	22	70	3	11	10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
TENDRING	5	2	...	2	...	1	...	2	6	5	22	4	42	82	13	14	5	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
RURAL	1	...	2	...	51	12	13	23	...	6	...	27	76	44	264	12	365	807	129	105	109	17	27	3	9	47	66	...	3	13	71	18	25	43	279	2,667			
BORO' & URBAN ...	1	16	...	21	6	503	68	66	112	12	19	11	181	401	235	1,460	81	1,515	3,635	479	852	621	167	141	53	43	261	299	5	18	171	347	112	105	260	1,026	13,293			
TOTAL FOR ADMINIS- TRATIVE COUNTY ...	1	17	...	23	6	554	80	79	135	12	25	11	208	477	279	1,724	93	1,880	4,442	608	957	730	174	168	56	52	308	365	5	21	184	418	130	130	303	1,305	15,960			
TOTAL FOR 1948 ...	2	22	...	17	16	511	78	70	153	5	4	9	219	486	276	1,610	107	1,645	3,851	541	844	654	189	173	62	44	324	324	7	38	248									

PART VII

TABLE IX.

NOTIFICATIONS OF INFECTIOUS DISEASE

YEAR ENDED 30TH DECEMBER, 1947.

(Figures obtained from the Quarterly Corrected Returns, Civilians only).

	SCARLET FEVER.	WHOOPING COUGH.	DIPH- THERIA.	MEASLES.	PNEU- MONIA.	CEREBRO- SPINAL FEVER.	ACUTE POLIOMYELITIS.	ACUTE POLIOBNO- PHALITIS.	ENCEPHALITIS LETHARGICA.	DYSEN- TERY.	OPHTHALMIA NEONATORUM.	PURPURAL PYÆMIA.	SMALL POX.	PARA- TYPHOID FEVER.	ENTERIC FEVER.	ERYSI- PELAS.	CHICKEN POX.	MALARIA.	OTHERS.	TOTAL.
	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.	No.
URBAN.																				
BARKING B. ..	139	303	7	742	67	1	5	—	—	4	1	24	—	—	—	20	—	—	3	1316
BENFLEET ..	16	87	—	254	6	—	1	—	—	—	1	1	—	—	—	8	—	1	—	375
BILLERIOAY ..	53	127	—	426	24	5	5	—	—	1	2	2	—	—	—	1	—	—	—	647
BRAINTREE AND BOOKING ..	8	11	—	48	—	1	—	—	—	—	—	—	—	—	—	—	—	—	68	731
BRENTWOOD ..	56	52	11	569	5	2	2	—	—	6	1	—	—	—	1	6	—	—	20	85
BRIGHTLINGSEA ..	2	22	—	—	4	—	—	—	—	—	—	—	—	—	—	2	—	—	—	39
BURNHAM-ON-CROUCH ..	2	29	—	5	1	—	—	—	—	—	—	—	—	—	—	3	—	—	—	43
CANVEY ISLAND ..	1	2	—	31	6	—	—	—	—	—	—	30	—	1	—	3	—	—	—	207
CHELMSFORD B. ..	4	15	—	145	2	1	5	1	—	—	—	—	—	—	—	7	—	—	—	535
CHIGWELL ..	23	134	—	349	13	—	5	—	—	2	—	5	—	—	—	10	—	—	1	709
CHINGFORD B. ..	69	203	—	290	114	1	12	2	—	2	—	—	—	—	—	3	16	—	—	166
CLACTON ..	4	11	—	129	—	—	2	1	—	23	1	—	—	8	2	9	—	2	10	504
COLOCHESTER B. ..	82	88	1	242	26	—	5	—	—	2	10	16	—	—	1	20	—	—	8	1692
DAGENHAM B. ..	161	370	9	936	152	6	9	1	—	9	—	10	—	—	—	—	—	—	—	141
EPFING ..	10	8	—	15	7	—	5	—	—	—	—	—	—	—	1	—	—	—	—	32
FRINTON AND WALTON ..	7	20	—	109	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	62
HALSTEAD ..	—	13	—	18	—	—	—	1	—	1	1	—	—	1	—	2	—	—	—	1046
HARWICH B. ..	15	13	—	7	17	3	2	—	—	1	1	3	—	1	2	29	2	—	1	3837
HORNCHURCH ..	122	179	—	627	60	6	13	—	—	8	10	43	—	—	2	39	—	—	5	1380
ILFORD B. ..	194	935	12	2232	327	5	29	1	—	2	8	20	—	3	—	34	88	—	—	193
LEYTON B. ..	219	178	4	697	192	4	13	—	—	—	—	1	—	—	—	13	—	—	—	71
MALDON B. ..	6	18	—	57	21	—	—	—	—	—	—	—	—	—	—	26	—	—	—	15
MALDON B. ..	4	15	—	34	5	—	—	—	—	3	1	43	—	—	26	1	3	—	—	908
RAYLEIGH ..	117	194	2	575	101	6	8	—	—	—	—	—	—	—	10	7	—	—	—	136
ROMFORD B. ..	1	4	—	7	—	—	2	—	—	5	—	5	—	—	3	10	—	—	3	1802
SAFFRON WALDEN B. ..	59	103	15	508	181	10	6	—	—	—	—	1	—	—	—	48	—	—	—	1357
THURROCK ..	11	18	1	91	2	—	4	1	—	—	5	30	—	—	—	8	—	—	3	70
WALTHAM HOLY CROSS ..	231	223	—	1077	151	14	23	—	—	1	2	9	—	2	—	2	—	—	—	78
WALTHAMSTOW B. ..	59	237	1	942	76	5	11	1	—	1	2	—	—	—	—	6	—	—	—	40
WANSTEAD AND WOODFORD B. ..	5	14	—	41	4	—	1	—	—	1	—	1	—	—	—	—	—	—	—	19463 40
WEST MERSEA ..	4	5	2	51	5	2	1	—	—	—	—	1	—	—	—	—	—	—	—	194
WITCHAM ..	—	21	—	16	1	1	—	—	—	—	—	1	—	—	—	—	—	—	—	368
WIVENHOE ..	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1995
TOTAL ..	1684	3652	67	11270	1572	73	171	9	—	72	46	250	—	16	38 1/2	320	104	9	110	19463 40
RURAL.																				
BRAINTREE ..	3	8	4	167	6	—	—	—	—	—	3	2	—	—	—	1	—	—	—	194
CHELMSFORD ..	21	23	—	158	5	2	3	1	—	—	—	—	—	—	—	3	—	—	—	216
DUNMOW ..	7	18	4	68	2	1	8	2	—	1	1	2	—	—	1	3	—	—	1	114
EPFING ..	14	26	—	90	8	—	1	—	—	—	—	3	—	—	—	—	—	—	—	147
HALSTEAD ..	3	27	—	60	8	—	4	—	—	—	—	—	—	—	—	6	—	—	—	102
LEXDEN AND WINSTREE ..	12	72	—	137	15	—	1	—	—	—	2	1	—	—	—	—	—	—	—	246
MALDON ..	7	47	—	26	6	—	—	—	—	—	1	1	—	—	—	2	—	—	—	89
ONGAR ..	12	27	—	78	2	1	—	1	—	—	1	—	—	—	—	9	—	—	—	124
ROCHFORD ..	13	19	1	113	11	4	4	—	—	—	1	26	—	—	—	2	—	—	—	201
SAFFRON WALDEN ..	11	24	—	141	4	1	10	—	—	—	—	1	—	—	—	5	1	—	—	194
TENDRING ..	24	57	—	265	11	—	4	—	—	—	—	—	—	—	—	—	—	—	—	368
TOTAL ..	127	348	9	1303	78	9	37	4	—	1	8	37	—	—	1	31	1	—	1	1995
TOTAL—BOROUGH AND URBAN DISTRICTS ..	1684	3652	67	11270	1572	73	171	9	—	72	46	250	—	16	38	320	104	9	110	19463 40
TOTAL—RURAL DISTRICTS ..	127	348	9	1303	78	9	37	4	—	1	8	37	—	—	1	31	1	—	1	1995
TOTAL FOR ADMINISTRATIVE COUNTY ..	1811	4000	76	12573	1650	82	208	13	—	73	54	287	—	16	39 1/2	351	105	9	111	21453 1/2
TOTAL FOR 1946 ..	1886	3287	152	7296	1409	59	13	—	2	219	52	327	9	21	16	337	98	35	519	15737
TOTAL FOR 1945 ..	2045	2060	219	15591	1141	68	42	—	1	558	40	228	—	11	9	301	6	11	100	22431